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THE UNIVERSITY OF ALBERTA

Tonal and Atonal Principles in Alban Berg's Vier Stücke fur Klarinette und Klavier, op. 5

by

Kathleen M. Breedyk

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF MUSIC

IN

MUSIC THEORY

DEPARTMENT OF MUSIC

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FALL 1988

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Interpretation is the critic's revenge upon art.

- Susan Sontag

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled "Tonal and Atonal Principles in Alban Berg's Vier Stucke fur Klarinette und Klavier," submitted by Kathleen Breedyk in partial fulfilment of the requirements for the degree of Master of Music in Music Theory.

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Date: Sept. 29/82

ABSTRACT

Alban Berg's Vier Stücke für Klarinette und Klavier, op. 5, represents an integration of tonal and atonal principles in a single work. There is consistent reference throughout the pieces to two systems: a tonal system, of which D, often accompanied by members of its augmented triad, is the focal pitch; and a system formed by the articulation of members of a specific group of sets that are related by the inclusion of 4-19 subsets and by invariance under T4. The augmented triad is an important basic unit in both systems, and precedents for considering it a structural element, rather than an embellishment, are given. While the pieces do not appear to be successfully analyzable solely in terms of one system or the other, a combination of the two renders a rewarding analysis, one which does not account for every pitch structure, but which nonetheless provides a frame of reference for nearly all the music.

The present study is an attempt to show that the work can be analyzed through a combination of the two systems both as individual pieces and as a set. Tonal and atonal considerations play roles of varying strengths in each of the pieces; for example, in the second piece, tonal considerations provide the cornerstone of the analysis, while in the fourth piece, set relationships are much more readily apparent. The analysis of the second piece also includes a comparison of the piece with the second of Arnold Schoenberg's Sechs Kleine Klavierstücke, op. 19, upon which it appears to be modeled, while at the same time

conforming to tonal and atonal principles as given above. It is shown in the conclusion of the study that not only are the pieces related by common tonal focus and set materials, but also, that a "real-time" analysis is possible, one which accounts for the order of the pieces.

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CHAPTER I

Introduction

Alban Berg's Vier Stücke für Klarinette und Klavier, op. 5, was completed in the summer of 1913, first performed in 1919 at a concert of Schoenberg's "Society for Private Performances" in Vienna, and published the following year.[1] Unlike some of Berg's other works, most notably Lulu, which was composed between 1929 and 1935, but for which the piano-vocal score was published only in 1979,[2] the Vier Stücke has long been available to scholars for analysis. Yet while Lulu has been the subject of recent extensive analysis,[3] the clarinet pieces have been almost totally neglected by theorists. Only a small handful of articles have been written about the pieces, and except for one, these deal largely with matters of performance practice.[4] Biographies of Berg containing discussions of his works include only very general descriptions of the Vier Stücke. Hans Redlich, who provides a modestly extended commentary on Berg's op. 5, notes that "the four pieces for clarinet and piano, Op. 5, bear witness to the temporary attraction of Schoenberg's five experimental piano pieces, Op. 11 and Op. 19";[5] while of form he observes only that the work reveals "the bony structure of the archetypal sonata pattern."[6] Berg's Vier Stücke für Klarinette und Klavier are more than a student's attempt to imitate his teacher, and the label "sonata" does little to describe the work. Except for Christopher Lewis's analysis of op. 5/3, there has been no attempt to deal with the compositional means and materials used

in the pieces and the syntax thereby created. The Vier Stücke für Klarinette und Klavier deserve a more prominent place in critical and analytical writings.

Perhaps the paucity of critical analysis of the four clarinet pieces can be explained by the fact that there appears to be no single consistent process employed throughout the pieces which might lead to a complete analysis. Douglas Jarman has observed that "Berg's harmonic language in the works from op. 3 to op. 6, although consistent within the context created by each piece, is not referable to any single criterion."[7] However, as Lewis has shown in his analysis of op. 5/3, the combination of several analytical approaches can render a rewarding analysis, one in which the tonal and formal logic of the pieces can be deciphered. It will be shown in this study that Berg uses two different, but complementary, compositional means to achieve a consistent structure in the four clarinet pieces.

There are two primary ways in which structural coherence is achieved in the Vier Stücke: reference to a tonal design, and the articulation of a closely related group of sets. The augmented triad is an important component of both the tonal design and the group of sets, for the pitch-class around which much of the music of op. 5 is structured is often accompanied by it, and it is also the smallest defining unit of the set group.

The notion of the augmented triad as a primary structural unit is controversial--traditionally, the triad has functioned as an embellishment which requires resolution. For example, the

augmented triad which appears in the music of the common practice period is normally an embellishment of V to I, a dominant chord with a raised fifth as a chromatic passing tone in a diatonic framework. Example I-1 shows a typical idiom, in an excerpt from the beginning of Schubert's "Thema" from "Ten Variations."

Example I-1: The Augmented Triad as Embellishment

However, in the latter part of the nineteenth century and early in the twentieth, the augmented triad on occasion functions as a background referential sonority. Gregory Proctor has described the gradual movement of chromaticism from the foreground to the background over the course of the nineteenth century.[8] With this movement, two things become possible--the shift of harmonic equivalence from the realm of the notational into the realm of the tonal, and divisions of the octave based purely on symmetry.[9] Proctor has outlined the five possible symmetrical divisions of the octave into twelve semitones, six

tones, four minor thirds, three major thirds, and two tritones. These divisions produce familiar scales and chords: the chromatic scale, the whole-tone scale, and the diminished and augmented triads.[10] (The whole-tone scale in particular is an important element in much music of the early twentieth century, including Berg's.)[11] Roughly half a century after Schubert's Theme and Variations, in Götterdämmerung, Wagner incorporates an augmented triad (Eb, G, B) in the background of the first part of the Norn's scene[12] (see Example I-2a); Eb and B both function as tonics in this passage, with some secondary emphasis on G, which is equidistant from the others. Arnold Schoenberg, in a work preceding Berg's four clarinet pieces, clearly articulates augmented triads at a point of resolution--in op. 19/2, two superimposed augmented triads conclude the piece (see Example I-2b). In one of Berg's own works preceding the Vier Stücke für Klarinette und Klavier, the augmented triad appears at the background: in "Nacht," from the Sieben Frühe Lieder, the tonic of the piece, A, is prolonged at length in the "B" section through the key areas of Db and F, creating an augmented triad at the background of the song[13] (see Example I-2c). The augmented triad as background or at a point of resolution is thus not an isolated, unprecedented event, either in Berg's own compositions, or in the works of other composers.

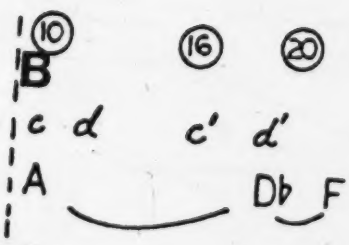
Example I-2: The Augmented Triad as Background or at Points of Conclusion

a)

INTRO	PART I	(trans)	PART II	(trans)	PART III
mm.1-49	49-189	(190-94)	195-247	(248-58)	259-317
eb	E eb eb eb		ends on V/eb	G	eb - b

b)

c)



Any tonal analysis in which the augmented triad is defined as a basic structural unit of course contradicts Heinrich Schenker's theories of tonality, as he defines tonality in its most basic terms as the linear prolongation of a major or minor triad.[14] Roy Travis has examined the possibility of using any sonority, or indeed any pitch, as the reference point or tonal centre of a work which does not derive from common-practice tonality: "Music is tonal when its motion unfolds [prolongs] through time a particular tone, interval, or chord."[15] Although this notion was initially quite controversial,[16] it has subsequently been readily adapted by theorists interested in the analysis of post-tonal music. Christopher Hasty, in his article, "Segmentation and Process in Post-Tonal Music," observes that "With the 'emancipation of dissonance' any interval is capable of being heard as self-sufficient; thus, in principle, any pitch may be associated with any other pitch and any number of pitches may conceivably be heard sounding together (con-sonans) as a comprehensible harmonic unit."[17] Travis uses the term "directed motion" to describe the prolongation of a particular pitch or set of pitches, either as the focal point of a motion or as the material from which the surrounding music can be seen to devolve.[18] Although Schenker's basic tenet of tonality is thus drastically altered (one could even argue abandoned), the means of prolongation he describes can still be applied in a linear analysis. Many theorists (Allen Forte, in particular) have analyzed early twentieth-century music with sketching techniques loosely derived from Schenkerian theory.[19] Using such

techniques, it will be shown in this study that D is prolonged in the Vier Stücke, often accompanied by pitches of its augmented triad, which are, like D, referential points in the background structure.

The augmented triad also functions in the Vier Stücke as the smallest subset of a group of closely related sets which are prevalent throughout. The addition of any other pitch-class to the augmented triad (set 3-12) gives either set 4-19 or set 4-24.[20] The pcs which comprise set 4-24 (0,2,4,8) are all members of the same whole-tone scale. It is the other set, set 4-19 (0,1,4,8), which provides the common denominator for the sets most consistently articulated throughout the Vier Stücke. Three of the four pcs of set 4-19 are contained in one whole-tone scale, and the remaining pc is a member of the other one. Because the three members from the same whole-tone scale form the augmented triad, the remaining pitch is always a semitone away from one of the members of that triad. Sets which reappear in the four clarinet pieces and articulate the formal structure can also be broken down into augmented triad(s) and pitches a semitone from the members of the triad; they contain the maximum numbers of 4-19 subsets for their respective cardinalities (see Figure I-A), and hold other 4-19 related sets invariant under T4 (see Figure I-B). It is for this reason that sets with these characteristics found throughout the Vier Stücke will be hereafter referred to as "4-19 related sets" or as the "4-19 set-group."

Figure I-A: Sets Which Contain the Maximum Number of 4-19 Subsets for Their Respective Cardinalities

Cardinality of set	No. of 4-19 subsets	Names
5	2 (Max.)	5-21
		5-Z17
		5-Z37
		5-22
6	6 (Max.)	6-20
	3	6-Z19
		6-Z44
		6-14
7	7 (Max.)	7-21
	4	7-Z17
		7-Z37
		7-22
8	8 (Max.)	8-19
		8-20
		8-7
		8-17
9	12 (Max.)	9-12
	9	9-3
		9-4

Figure I-B: Sets With the Maximum Number of 4-19 Subsets under T_4

Set	Set(s) held invariant at T_4
9-12	9-12
9-3	7-21, 6-20, 5-21, 4-19, 3-12
8-19	7-21, 6-20, 5-21, 4-19, 3-12
8-7	6-20, 5-21, 4-19, 3-12
8-17	6-20, 5-21, 4-19, 3-12
7-21	6-20, 5-21, 4-19, 3-12
7-Z17	5-Z37, 3-12
7-Z37	5-Z17, 3-12
7-22	5-22, 3-12
6-20	6-20, 5-21, 4-19, 3-12
6-Z44	4-19, 3-12
6-Z19	4-19, 3-12
6-14	4-19, 3-12
5-21	4-19, 3-12
5-Z17	3-12
5-Z37	3-12
4-19	3-12

Most of the sets given above display some very interesting properties, which will be described briefly below. Of the pentachords, set 5-21 is particularly striking. As well as holding set 4-19 invariant under T4, 5-21 is the complement of a set which contains an extraordinary number of 4-19 subsets--set 7-21, with seven 4-19s, three more 4-19 subsets than any other septachord. Set 5-21 is the only set which is both R2- and Rp-related to the Z-pair 5-Z17 and 5-Z37,[21] which are also given above. 6-20 is the most striking of the hexachords--it includes two augmented triads (the maximum for a hexachord) a semitone apart, which give six 4-19 subsets, three more than any other hexachord; it also has only four distinct transpositions, as it replicates itself at T4. It has only one subset of cardinality five--set 5-21, which occurs five different ways within the set. Of the septachords, set 7-21 has the most 4-19 subsets--seven. As Forte has noted, the most occurrences of any other four-note set in set 7-21 is three.[22] It was noted above that set 7-21 contains three more 4-19 subsets than any other septachord. It contains its complement (set 5-21) six times, and holds the hexachord (set 6-20) which includes the most 4-19 subsets invariant under T4. Set 7-22 is the only septachord to contain the Z-pair 6-Z44 and 6-Z19 (given above) twice.[23] Set 8-19 includes eight different 4-19 subsets, and is the only octachord to include eight occurrences of its complement; it also holds set 7-21 invariant under T4. Sets 8-7 and 8-17 are R2-related, hold set 6-20 invariant at T4,[24] and each is R1-related to set 8-19. Set 9-12 contains twelve 4-19 subsets,

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three more than any other nonachord; it also includes six 8-19 subsets, six 7-21s, six 6-Z19s and six 6-Z44s, and three augmented triads (and of course is the only nonachord to do so). Set 9-12 is also the complement of set 3-12, the remaining augmented triad.

As T- is a transformation which articulates relationships between the 4-19 related sets, it is interesting to see a table of some of the sets which appear in Figures I-A and I-B combined with themselves at T4 (see Figure III); the resulting sets are all in Figures I and II as well.

Figure I-C: Sets of Figures I-A and I-B Combined With Themselves at T4

4-19 + T-4-19)----------6-20

5-21 + T-5-21)----------6-20

5-Z17 + T-(5-Z17)----------7-Z37

5-Z37 + T-(5-Z37)----------7-Z17

5-22 + T-5-22)----------7-22

6-Z19 + T-(6-Z19)----------8-19

6-Z44 + T-(6-Z44)----------8-19

6-14 + T-6-14)----------8-19

7-21 + T-7-21)----------8-19

8-19 + T-8-19)----------9-12

Any set which produces a set of cardinality greater than nine when combined with itself at T4 is not given in Figure III.

Sets 3-12[25] and 6-20 remain invariant at T4, as does set 9-12; the three sets, containing one, two and three augmented triads respectively, have much in common. If we combine set 3-12 with another augmented triad whose members are a semitone away from the first, set 6-20 is formed; likewise, the addition of a third augmented triad to set 6-20 gives set 9-12.

Finally, there are a few sets which are not 4-19 related as defined above, but which occur infrequently in the Vier Stücke at crucial structural points in the music. These few sets (set 8-24, 7-33, 5-33) contain high multiplicities of interval class 4, as do the 4-19 related sets. Before the reader concludes that it is the high multiplicity of ic4 which characterizes the sets which reappear throughout op. 5 (an unremarkable event at the very beginnings of the post-tonal era, where it seems obvious that the major third would be the last element of traditional tonality to be abandoned), it should be noted that there are sets which contain high multiplicities of ic4 that are not at all apparent in the clarinet pieces. For example, set 6-20 and set 6-35 share the highest multiplicity (six) of ic4 in a hexachord. But while set 6-20 is prominent in op. 5, particularly at the climax points of the first and third pieces, and as an invariant set under transposition throughout the fourth piece (as will be shown) set 6-35 is not formed in any discernible consistent fashion. The presence of the augmented triad simultaneously with pcs that neighbour the triad, the characteristic of set 4-19 which differentiates it from the only other tetrad which contains the augmented triad, set 4-24, is the aspect which makes the

set-group prevalent in op. 5 significant. The embellishment of a structural pitch by semitone, in the form of passing tone or neighbour tone is an important method of prolonging that pitch. As the tonal system devolves from prolongation of the augmented triad, with structural pcs frequently embellished by semitone, and as 4-19 related sets can be segmented into augmented triads and pitches a semitone away from members of the triad, it can be seen that the tonal and atonal principles of organization are similar at least in one respect.

The purpose of this paper in general, then, will be to attempt to understand the logic behind the Vier Stücke für Klarinette und Klavier through both a tonal and a set-theoretical approach, which, although they draw from vastly different theoretical sources, are not contradictory, but complementary.

CHAPTER II

Analysis of Op. 5/1

In any analysis, choices must be made as to which combinations of pitches are structurally significant in the work. The problems that the selection process presents to the analyst are discussed by Hasty in his article "Segmentation and Process"; the two most relevant to this study are "the selection of relatively few pitch-class sets from the great number of possibilities" and "the treatment of pitch relations excluded from a set-class analysis."[1]

Selection processes are compounded by the fact that there are so many different and valid ways in which pcs can be grouped in an analysis. Forte defines three basic types of segmentation: the "primary segment," given by pitches "isolated as a unit by conventional means" such as "a beamed group" or "chords, in the sense of vertical groupings, and ostinato patterns";[2] the "composite segment," which is "a segment formed by segments or subsegments that are contiguous or that are otherwise linked in some way";[3] and segments given by "imbrication," the "analytical procedure of extracting, sequentially, subcomponents of some linear configuration."[4] Hasty demonstrates that pitches can be usefully grouped by timbre, dynamics, register, contour, or any number of other criteria.[5]

The theory of a recurring limited number of sets presented in the first chapter is the result of careful listening and of painstaking segmentation of the pieces, using the above methods,

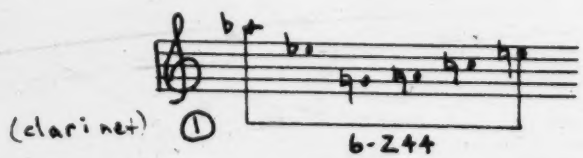
into set-classes. Although the total number of sets thus given was quite large, only a select group of sets appeared consistently throughout the pieces, particularly as primary and composite segments, and through imbrication: these were the 4-19 related sets discussed in the previous chapter. The reader will observe occasions in this study where the set given by a clearly articulated chord or melodic fragment is not marked; this is because it is not a 4-19 related set and is not articulated at least several times throughout the Vier Stücke. The absence of demarcation of such an event brings us to the second of the problems given above: "the treatment of pitch relations excluded from a set analysis". In the case of the Vier Stücke, these pitch relations will often be the result of tonal considerations, and can thus be accounted for in the other half of the analysis. (It should also be noted that in some phrases where tonal considerations predominate and 4-19 related sets are not readily apparent, a limited number of non-4-19 related sets are present, lending support to the pitches which define the tonal events; this is a relatively rare event.)

The first piece divides into four phrases: (mm. 1-4), mm. 5-6, mm. 7-9 (up to and including the pause) and mm. 9-12 (after the pause to end). Divisions are articulated by changes in texture, tempo and dynamics, as well as by the set materials. 4-19 related sets and focus on D are prevalent throughout the first three phrases, as will be shown.

The piece begins with a solo melodic fragment, given by the

clarinet, the pitches of which form set 6-Z44, a member of the group of 4-1[Q] related sets (see Example II-1). Set 6-Z44 is generally referred to as Schoenberg's "signature" set, for the pitch-classes which form letters of the composer's last name, EsCHBEG (Es represents Eb, H is B, and B is Bb), are reducible to this set-type.[6] Forte has remarked upon the many manifestations of the signature set in Schoenberg's works, and also noted that 6-Z44 or its Z-pair, set 6-Z19, begins every piece of Berg's op. 5.[7] In fact, as will be shown in this study, set 6-Z44 appears at the beginning of every piece of op. 5, and twice in conjunction with set 6-Z19. The appearance of set 6-Z44/6-Z19 at the beginning of any piece will be called the Kopfmotiv.[8]

Example II-1: The Kopfmotiv of Op. 5/1



The first phrase of the piece is arranged around a focal point of D, with some emphasis on pitches of its augmented triad. The phrase proper begins in m. 2, after the statement of the Kopfmotiv, as it is here that the tempo slows, the piano enters, and the performance style becomes legato for the clarinet D and F# (see Example II-2a). The piano bass line is strongly centred around D for the duration of the phrase; D is emphasized by its duration, strong metrical position and by pervasive semitone voice-leading (see Example II-2b). In the second half of m. 2,

the clarinet reiterates the fragment A-Bb-Ab which begins the piano part; the fragment is inverted in m. 3 to A-Ab-Bb, and extended into a collection of five pcs, which combine to form a set-type which is also given in the left hand piano part; together, the two versions of the set symmetrically frame D and divide the measure (and the phrase proper) exactly in half (see Example II-2c). The pitches of the clarinet line from the beginning of m. 3 up to and including D at the end of the second beat of the measure comprise set 5-6, as do the pitches in the piano left-hand from D to the end of the measure. The piano left-hand D is further emphasized by two interlocking complementary sets--the pitches of the first half of the measure give set 5-1; the pitches of the entire measure give its complement, set 7-1[9] (see Example II-2d). D begins and ends the clarinet segment of the fourth measure, and resolves a semitone figure (Eb-E-F) in the clarinet part at the end of the phrase which is also given earlier in the phrase in the right-hand of the piano (see Example II-2e).

Example II-2: Focus on D in the First Phrase

a)

Example II-2 (cont'd)

b)

(L.H. piano)

c)

d)

- (L.H. piano)

Example II-2 (cont'd)

e)

4-19 related sets are prominent in the first phrase. The pc content of the first measure of course gives the Kopfmotiv; the second measure is saturated with members of the 4-19 set-group (see Example II-3a). The D-F# clarinet fragment of m. 2 combines with the initial A-Bb in the piano part to give set 4-19. The first segment in the left-hand piano part, articulated by rests, gives set 5-21, while the second segment, which carries over into m. 3, gives set 4-19; the two segments combine to give set 6-20. Sets 7-21 and 5-37 are formed by combining the right- and left-hand piano parts, and the total pitch content of the piano part of m. 2 (including the first beat of m. 3) comprises set 8-7. In the third measure, 4-19 related sets are apparent in close proximity to the tonal events articulated through set-type 5-6 (see Example II-3b): each appearance of set 5-6 in m. 3 combines with the F of the right-hand piano part to form set 6-Z44, and with both E and F of the right-hand piano part to form two pitch aggregates, set 7-21 and 7-22, the union of which is set 6-Z19. The second half of m. 3 gives set 7-21, while the

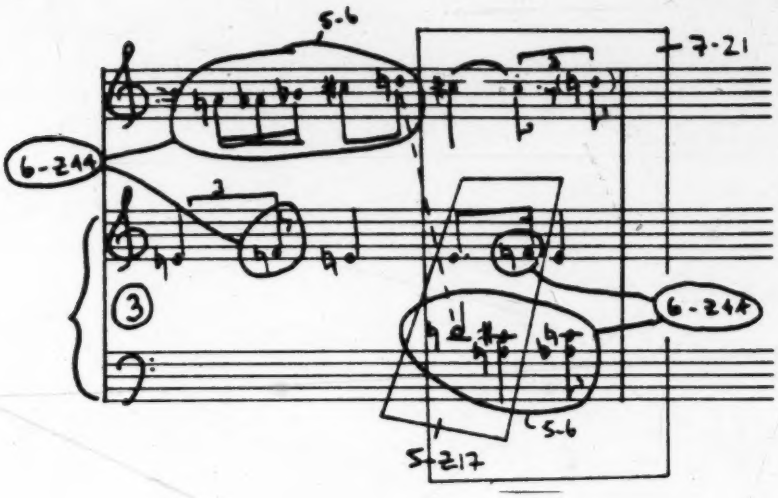
third beat of the piano part gives set 5-Z17. Relationships between the beginning and ending of the first phrase are articulated through 4-19 related sets (see Example II-4c). The piano part (except for the bottom pitch, Eb) and clarinet part combine to give set 6-Z44 at the end of m. 4. The appearance of the set in m. 4 has only two pcs in common with the Kopfmotiv, Ab and A, but the four variant pitches in each case combine to give set-type 4-17 (a non-4-19 related set), which is also given at the end of the phrase by the top four pcs of the last beat of the fourth measure (F, D, C# and Bb); these four pcs reappear at the beginning of the second phrase. Another relationship between the beginning and end of the phrase is articulated by set 4-19, formed from both the last four pitches of the phrase and the first four pitches of the phrase proper; the framing 4-19s have two pitches in common, D and Bb, both members of the D augmented triad. In the first phrase of the piece, then, structural coherence is provided by an integration of focus on D, through its symmetrical framing at the midpoint and by linear means, and of 4-19 related sets, clearly articulated throughout.

Example II-3: 4-19 Related Sets in the First Phrase

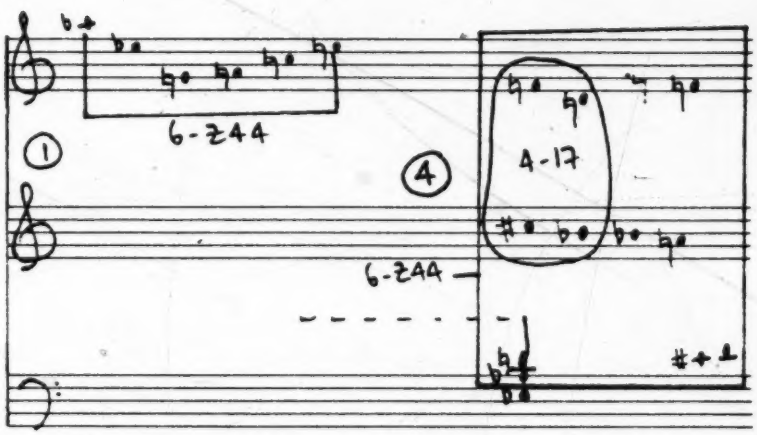
a)

Example II-3 (cont'd)

b)



c)

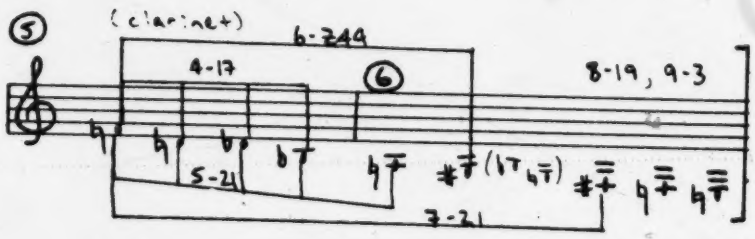


The musical substance of the second phrase also revolves around the articulation of 4-19 related sets, and, to a lesser extent, focus on D and members of its augmented triad. The clarinet line unfolds through the phrase in a way which both reveals interlocking 4-19 related sets and connections between the first and second phrases (see Example II-4a). The first four, five and six pcs of the line give sets (4-17, 5-21 and

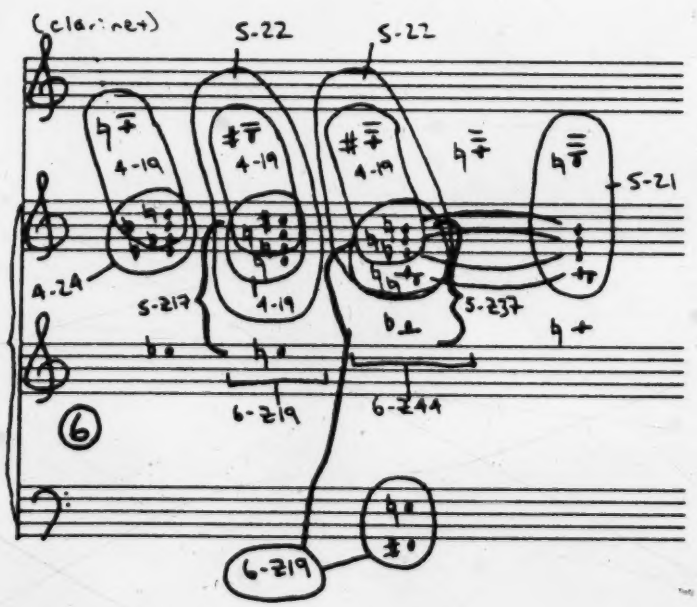
6-Z44 respectively) which were formed at the end of m. 4 from the same pcs; their order is preserved here. The first seven pitches (not including the thirty-second note embellishment, Bb and G) comprise set 7-21; the entire clarinet line excluding the embellishment gives set 8-19; the whole line including the thirty-second note figure gives set 9-3. In m. 6, the clarinet and piano parts combine to form chords which are saturated with 4-19 related sets (see Example II-4b). (Only those formed from consecutive pcs are given here).

Example II-4: 4-19 Related Sets in the Second Phrase

a)



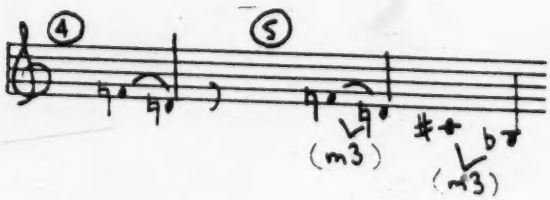
b)



Focus on D is also apparent in both the clarinet and piano parts of the second phrase. The clarinet F and D of m. 5 are a continuation of the clarinet line of the first phrase. As the C# and Bb which follow F and D in m. 5 are a transposition down a major third of F and D, and D is the goal of the clarinet line in m. 4, Bb, like D, receives slightly more emphasis than the other two pitches (see Example II-5a). The piano part of the phrase displays directed motions towards D and members of its augmented triad (see Example II-5b). The piano bass descends from the initial D to F# at the end of m. 6, while the right-hand piano part of m. 5 ascends twice by semitone to C#, which is revealed as a passing tone to D at the beginning of m. 6. The highest pitch of the phrase is the piano's Bb in m. 6, which coincides with the chords so densely saturated with 4-19 related sets.

Example II-5: Focus on D in the Second Phrase

a)



Example II-5 (cont'd)

b)

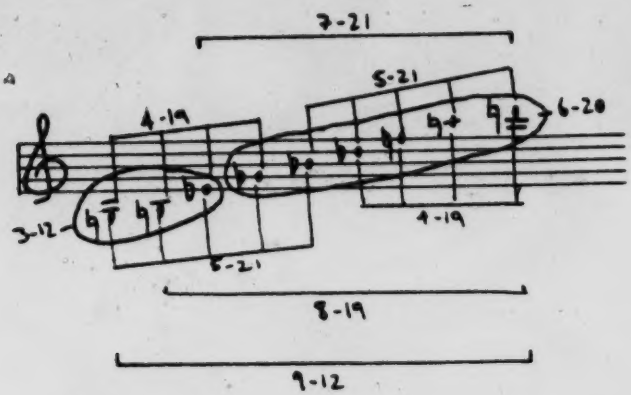
In summary, the second phrase of the piece includes a large number of 4-19 related sets, and to some extent as well, focus on D. The phrase is constructed so that both the clarinet line that spans the phrase and the piano and clarinet chords which conclude it are saturated with 4-19 related sets, while focus on D is realized through some emphasis in both the clarinet and piano parts on pitches of the D augmented triad.

The third phrase also derives its coherence from both D focus and the presence of 4-19 related sets, and through the conclusion of earlier events in the piece. The rapidly ascending clarinet run at m. 7 reveals, like the clarinet of mm. 5-6, interlocking members of the 4-19 set-group, although the structure here is even more complex, creating a very tight

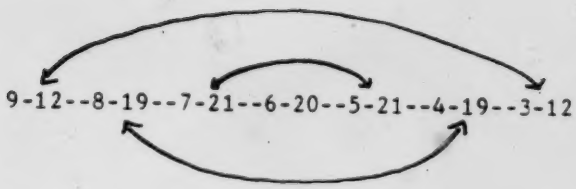
pattern (see Example II-6a). Unlike the clarinet line of m. 6, the clarinet run of m. 7 is also structured around a focal point of D. The pitches of the run comprise set 9-12, which, we recall from Chapter I, contains the maximum saturation with 4-19 related sets, and three augmented triads; the first three pitches give its complement, set 3-12. The first and last four pitches give 4-19; the first and last five pitches give 5-21; their point of intersection is Bb in the middle of the run. The last six pitches give set 6-20; the last seven pitches give 7-21, complement of the first five pcs; the last eight pitches give set 8-19, complement of the first four pcs. It is interesting to note that these particular 4-19 related sets have a shared feature which distinguishes them from the other 4-19 related sets. There are a handful of sets included in Figure I-B (p. 9) which hold either themselves or sets of their cardinality minus one invariant under T4; these sets form a "pretty nested structure" (see Example II-6b). The sets are all clearly given in the clarinet run at m. 7, arranged into complementary pairs, as observed above. The goal of the run is D, which breaks the intervallic palindrome of the first eight pitches of the clarinet run (see Example II-6c). D is subsequently framed symmetrically by neighbouring pitches C# and Eb; D and Eb are the highest pitches yet for the clarinet. Interestingly, the clarinet run of m. 7 also links the second and third phrases of the piece--the first six pitches of the segment form set 6-31, the same set which is clearly articulated in the clarinet and right-hand piano of the last chord of the previous phrase (see Example II-6d).

Example II-6: Clarinet Run at m. 7

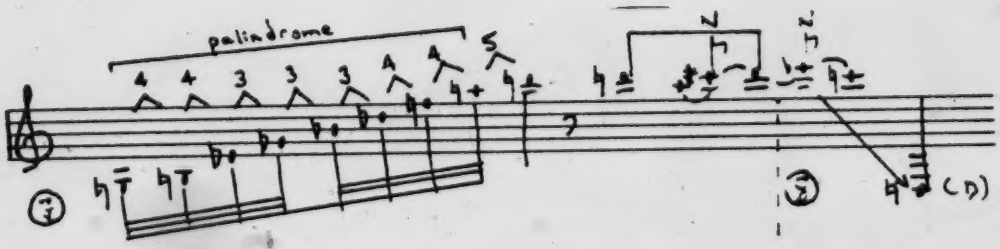
a)



b)

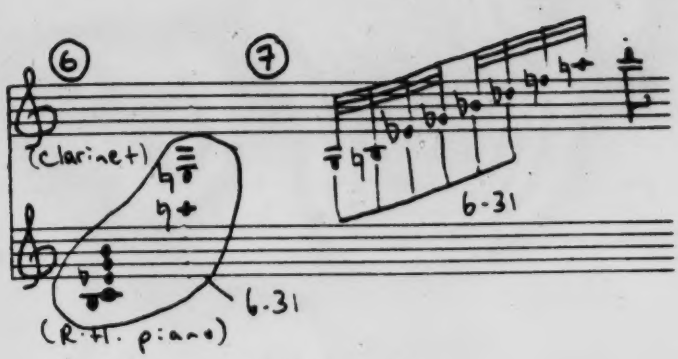


c)



Example II-6 (cont'd)

d)

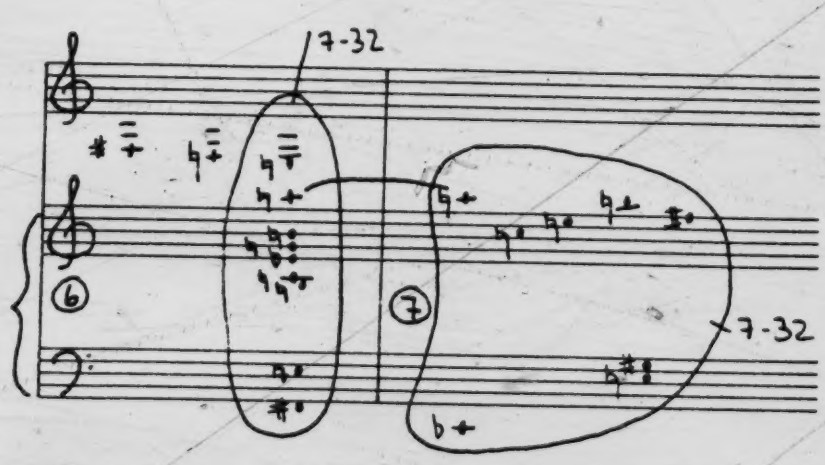


The piano part of the third phrase begins a little more enigmatically than the clarinet part--there appears to be no tightly-woven pitch compilation or strong D focus. Rather, the set formed by the last seven pitches of the second phrase (set 7-32) is also formed by the beginning of the piano part of the third phrase (see Example II-7a). The piano part underlying the clarinet run culminates in a few chords in mm. 7-8 which give clearly articulated 4-19 related sets (see Example II-7b). Coinciding with the chords is the concluding D of the clarinet run, heard almost immediately after the low D in the left-hand piano that in turn concludes a long descending bass figure (see Example II-7c) which began in m. 3. Note in both the clarinet and piano parts the final rapid descent from a prominent Eb to a D more than an octave below. At mm. 8-9, the piano right-hand unfolds a motion to D (see Example II-7d). The concluding D of the piano bass line, and the D which concludes the piano right-hand rise combine with the recurring piano chord to form

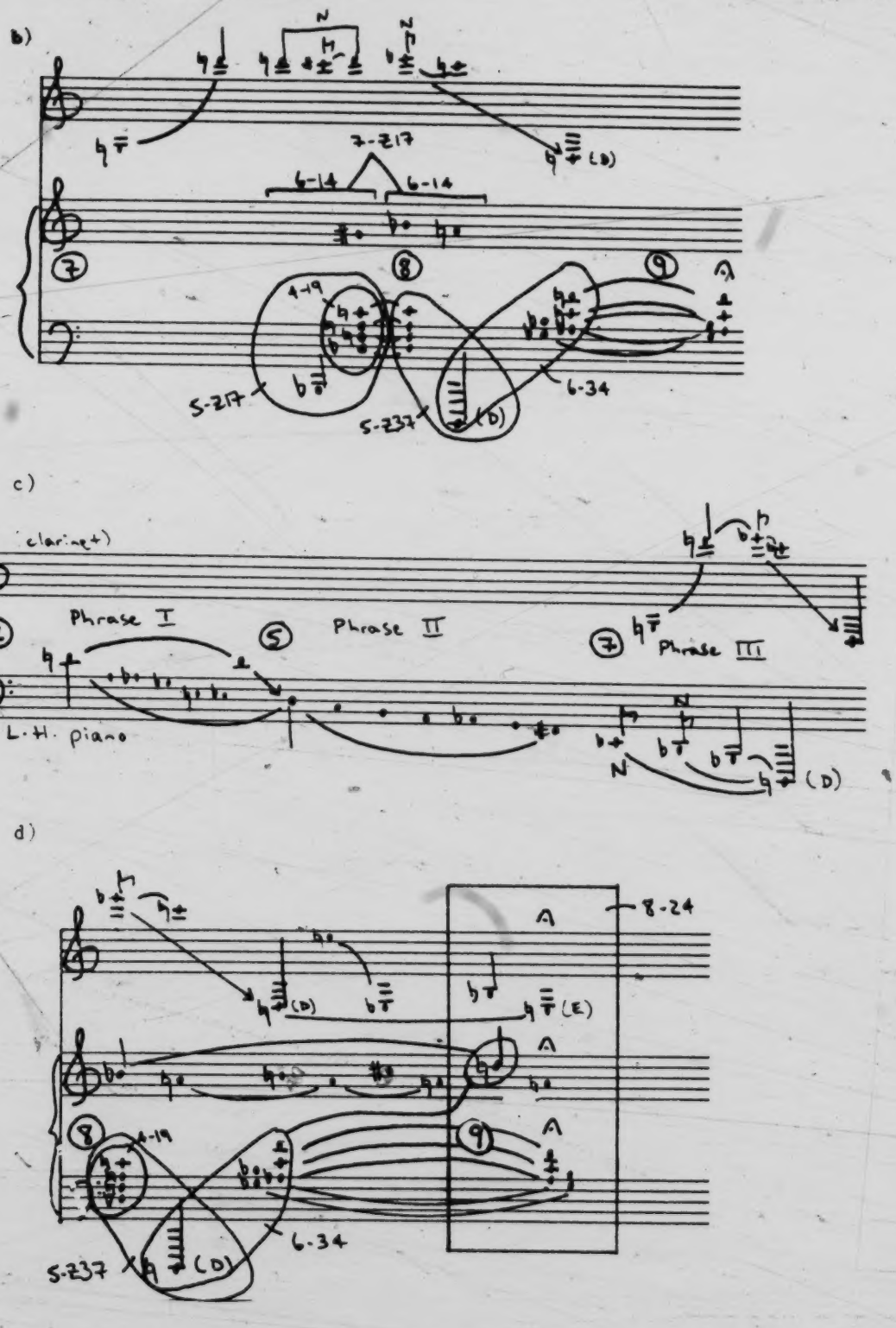
set 6-34, a set which for Berg has strong cadential associations,[10] and one which appears later in the Vier Stücke in similar circumstances, as will be shown. There is some movement away from D already before the end of the phrase: the clarinet E which concludes the second phrase of the piece reappears at the pause in m. 9, as the conclusion of a chromatic rise from D a tone below it. The pitches at the beginning of m. 9 leading up to and including the chord at the pause give set 8-24, which, with set 8-19, contains the highest multiplicity of ic4 in an octachord (seven); set 8-24 also includes four subsets of set 6-34, the cadential set.

Example II-7: Focus on D and 4-19 Related Sets in the Third Phrase

a)



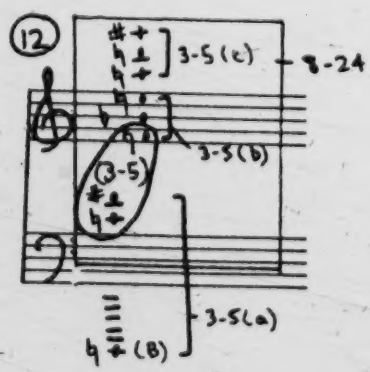
Example II-7 (cont'd)



The movement away from D in the clarinet part at the end of the third phrase seems to foreshadow events of the fourth phrase of the piece, which is not focussed on D, and which does not contain articulated 4-19 related sets. The piano chord of the last three measures, excluding the low B at the end of m. 12, comprises set 8-24, the same set-type that serves as a cadential gesture in the third phrase (see Example II-8a). The piano chord including the low B can be divided into three superimposed set 3-5s. The bottom three pitches at T4I map onto the three pitches immediately above them; at T8I, they map onto the top three pitches. This type of construction, incidentally, is also apparent at the clarinet run in m. 7: the 5-21s at either end of the run are related by T8I (see Example II-8b). The piano sonority (excluding low B) is symmetrical: the top six and bottom six pitches of the chord each give set 6-Z43, the top and bottom five pitches each give set 5-15, and the top and bottom four pitches each give set 4-14 (see Example II-8c). As in the clarinet run at m. 7, the point of intersection of the two identical pentachords is Bb.

Example II-8: Construction of Concluding Piano Chord

a)



Example II-8 (cont'd)

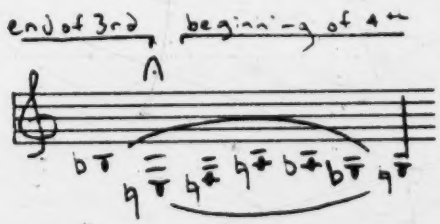
b)

c)

There are two pitches in particular which are prominent in the last phrase and seem unresolved. The low B in the piano part of the last measure, for example, does not fit into either of the analytical contexts we have established. Although it is part of the symmetrical construction involving the stack of 3-5s, and has been registrally prepared by the low D at the beginning of m. 8, nonetheless, the D at m. 8 gives the real resolution in the piece--as noted earlier, it completes the descending bass line which continually revolves around D, beginning in the piano left-hand in m. 3. The clarinet part of the last phrase is

structured quite differently than the clarinet part of the first three phrases. The clarinet line increases in structural complexity from phrase to phrase in the first piece, culminating in the run at m. 7; pitches which immediately follow the run focus on D. But the clarinet pitches at the very end of the third phrase and of the last phrase do not reveal any structure derived from either focus on D or the 4-19 set-group: instead, they unfold a pattern which symmetrically frames G, the pitch repeated throughout the last few measures (see Example 9). The piano low B and the clarinet G are perhaps the most difficult pitches in the first piece to assess structurally. It will be shown when we discuss connections among the four pieces in the last chapter of this study that they do indeed fit within the context of focus on D (see pp. 92-93), but this is only apparent after consideration of another piece of op. 5.

Example 9: The Clarinet Line of the Fourth Phrase



The first of the Vier Stücke fur Klarinette und Klavier, then, derives much of its coherence from focus on D and the articulation of 4-19 related sets, at least in the first three phrases. Focus on D is most obvious in the first and third

phrases of the piece, and is also present, although apparently subordinate to the set-theoretical considerations in the second phrase. 4-19 related sets are readily apparent in the piano part of the first three phrases, while patterning through 4-19 related sets in the clarinet part becomes gradually more intricate as the piece progresses, culminating in the clarinet run at m. 7, where D focus and the set-group converge for the climax of the piece. The enigmatic concluding phrase contains elements which are resolved in a later piece of the set, as will be shown.

CHAPTER III

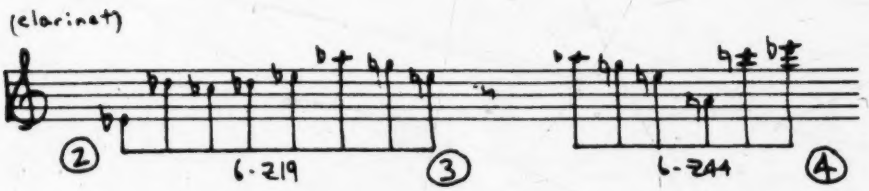
Analysis of Op. 5/2

The two analytical methods described in the introductory chapter can be successfully applied to the second of the four clarinet pieces to demonstrate its tonal and formal logic. D is the focal point of the piece, accompanied by members of its augmented triad, particularly F#. 4-19 related sets are also present, but seem subordinate to the tonal considerations. The piece also appears to be modeled on the second of Schoenberg's Sechs Kleine Klavierstucke, op. 19. The tonal structure divides the piece into three phrases: 1) (mm. 1-4) initial statement and reiteration of D and F# with overlying Kopfmotiv; 2) (mm. 5-6) predominance of a set-type which emphasizes pcs neighbouring to the D augmented triad; and 3) (mm. 7-9) return to D and F# of the beginning, and the addition of Bb, which completes the augmented triad. The divisions are further articulated by changes in tempo, dynamics and texture.

The Kopfmotiv spans the clarinet part of the first phrase, which consists of two statements, separated by a rest and a change in tempo (see Example III-1). The pitch-classes of the first statement, C Db Eb E G Ab, give set 6-Z19, and the substitution of Db with A in the second statement gives its Z-pair, set 6-Z44, with pcs C Eb E G Ab A. The transposition of set 6-Z44 which appears here is the same transposition of the set which begins the first piece of op. 5. Note that the union of 6-Z19 and 6-Z44 in the second piece gives set 7-22, which, as

noted in Chapter I, is the only septachord to contain two each of 6-Z19 and 6-Z44 subsets.

Example III-1: The Kopfmotiv of Op. 5/2

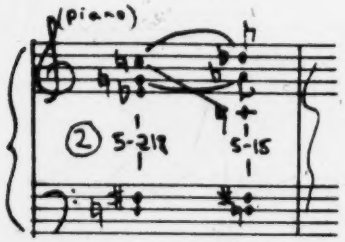


The structure of the first phrase is quite simple. The basis of the piano part of the first four measures is a D-F# dyad in the left-hand repeated throughout three of the four measures, over which the Kopfmotiv is uttered. The right- and left-hand piano parts together form three chords, the first of which gives set 5-Z18, an abstract subset of the 6-Z19 in the overlying clarinet line. The top three pitches of the second chord (set 5-15) embellish the upper three pitches of the first chord by semitone, while D-F# remains the basis of the chord (see Example III-2a). All three upper pitches are literally present in the clarinet statement of 6-Z19; in fact, the pitches of the first two chords in the piano right hand, set 5-20, are the same as the first five pitches of the clarinet part at m. 1 (see Example III-2b). The third chord, stated for the first time in m. 4, is not built upon the D-F# dyad, but retains the same three upper pitches as the first chord (see Example III-2c); the pitches of

the third chord, which is tied over into the second phrase, give set 5-34.

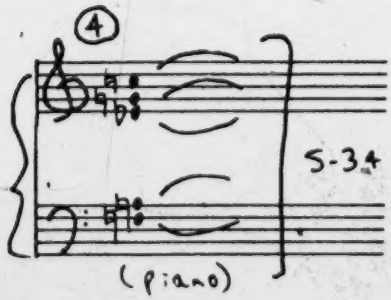
Example III-2: Structure of the First Phrase

a)



b)

c)



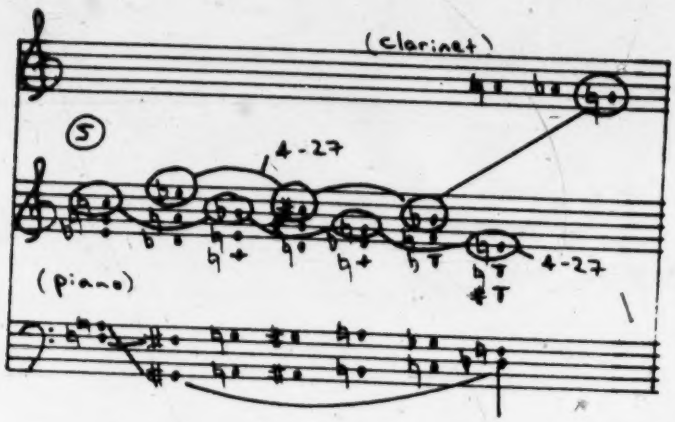
The second phrase appears to be more complex than the first. Set-type 4-27 is readily apparent in the phrase, both vertically and linearly, and the consistency of its appearances articulates pcs which neighbour the D-F# dyad of the opening measures; the neighbour pcs are contained within the last chord of m. 5, which will hereafter be referred to as the "neighbour chord." In m. 5, the upper four pitches of four of the six piano chords leading to the neighbour chord combine to give set 4-27 (as do the bottom four pitches of the neighbour chord itself) (see Example III-3a). The treble line of the piano of m. 5, and the last pitch of the descending clarinet line, arpeggiate two interlocking 4-27s, of which the final pitches are E and G respectively, while the uninvolved bass notes ascend by semitone to Db, part of the neighbour chord (see Example III-3b). As final pitches of clearly defined patterns, Db, E and G are thus most stressed, and Db and G are given further emphasis throughout m. 6 by the repetition of the semitone approaches to them in m. 5: the B-C-Db of the piano bass and the clarinet semitone figure A-Ab-G. Interestingly, D is the only pc not heard in this repeated three-chord segment.

Example III-3: Focus on Pcs in the Second Phrase Which Neighbour D and F#

a)

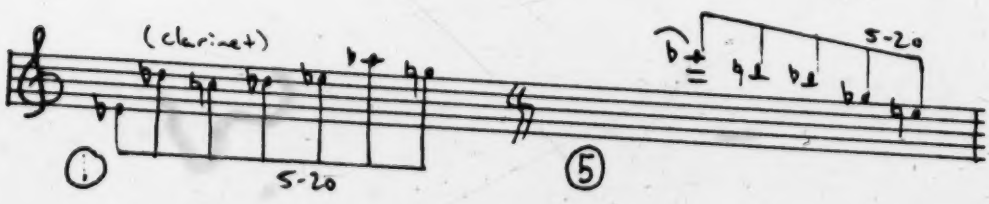
Example III-3 (cont'd)

b)



There are some subtle ways in which continuity is maintained between the first and second phrases. Set 5-34, given by the pitches of the chord tied over from the first phrase into the second (see Example III-2c), is the only pentachord to include more than one 4-27 subset; this is surely significant in light of the prominence of set 4-27 in the second phrase. As well, set 5-20, which is formed from the first five pitches of the clarinet line at m. 5, including the tied-over Eb, is also given by the first five pitches of the clarinet part of the first phrase (see Example III-4).

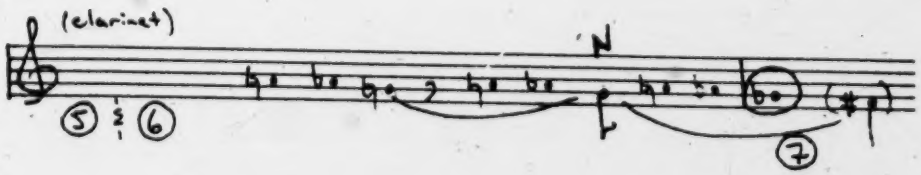
Example III-4: Connection Between the First and Second Phrases



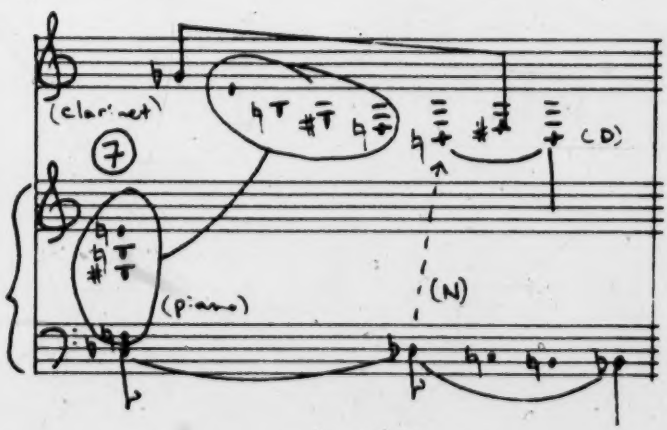
The beginning of the third phrase (m. 7) marks the transition back to the D-F# dyad of the first phrase. The twofold clarinet statement of the fragment A-Ab-G in mm. 5-6 is altered for the third statement to A-Ab-F#, identifying G as an extended passing tone between Ab and F# (see Example III-5a). The clarinet pitches of m. 7, with the exception of F# and D, descend through the pitches of the piano part of the neighbour chord of the second phrase (see Example III-5b). C is substituted for Db of the piano chord in the clarinet part, and F# is sounded immediately after. The function of Db seems to be twofold--as well as being a lower neighbour to D, it initiates the descent to Bb at the end of the piece.

Example III-5: Return to D-F# Sonority of the First Phrase

a)

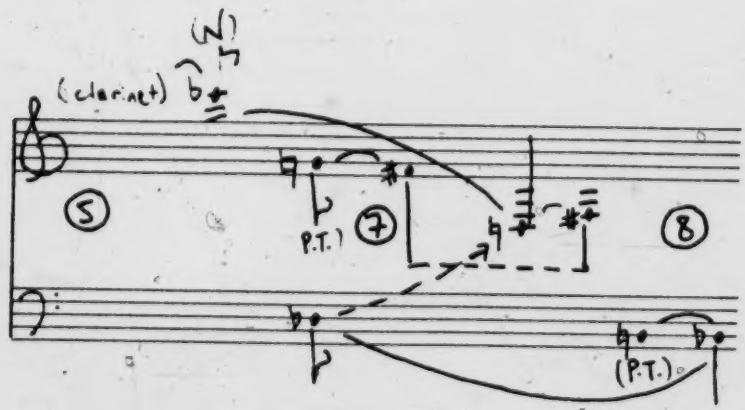


b)



As noted above, 4-19 related sets are less prominent in the piece than focus on D. The clearly articulated 4-19 related sets are included in the sections where the D-F# dyad is present. The pitches of the initial clarinet statements which span the first phrase give sets 6-Z19 and 6-Z44 (the Kopfmotiv sets), while the pitches of the last measure of the piece, throughout which the D-F# dyad also sounds, give set 4-19 (with pcs D, F#, Bb and B). The combination of pcs of the D augmented triad and the emphasized neighbouring and passing tones which prolong them suggest 4-19 related sets below the surface of the piece (see Example III-6): the highest pitch of the piece, the clarinet's Eb at m. 5, ultimately resolves to D in m. 7, the clarinet's lowest pitch; likewise, the G stressed in the clarinet part at the end of m. 5 and throughout m. 6 resolves, as discussed earlier, to F# in m. 7; Db, as well as being a lower neighbour to D,descends to Bb in m. 8 through B, upper neighbour to Bb.

Example III-6: 4-19 Related Sets Below the Surface



Finally, there is evidence that this piece is modeled on the second piece of Schoenberg's Sechs Kleine Klavierstücke, op. 19. Schoenberg's influence on Berg is well documented; allusions to Berg's current favorite works of Schoenberg's appear in Berg's music before the four clarinet pieces. For example, Redlich notes that the fourth of the five Altenberg Lieder is quite similar to the opening melody of the Entrückung in Schoenberg's Quartet op. 10,[1] and Mark DeVoto mentions that Berg was working on the reduction of this quartet as late as July of 1912.[2] DeVoto also points to another source for the fourth song of the Altenberg Lieder, namely, a celeste passage from Schoenberg's Five Pieces for Orchestra, op. 16, published in full score that year.[3]

Only the most obvious similarities between Schoenberg's op. 19/2 and Berg's 5/2 have been noted. Mosco Carner observes that "[Berg's] second piece is identical in length with Schoenberg's [op. 19] no. 2 and shows the same preoccupation with the major third as the harmonic basis."[4] Redlich seems to dismiss out of hand any deeper comparison:

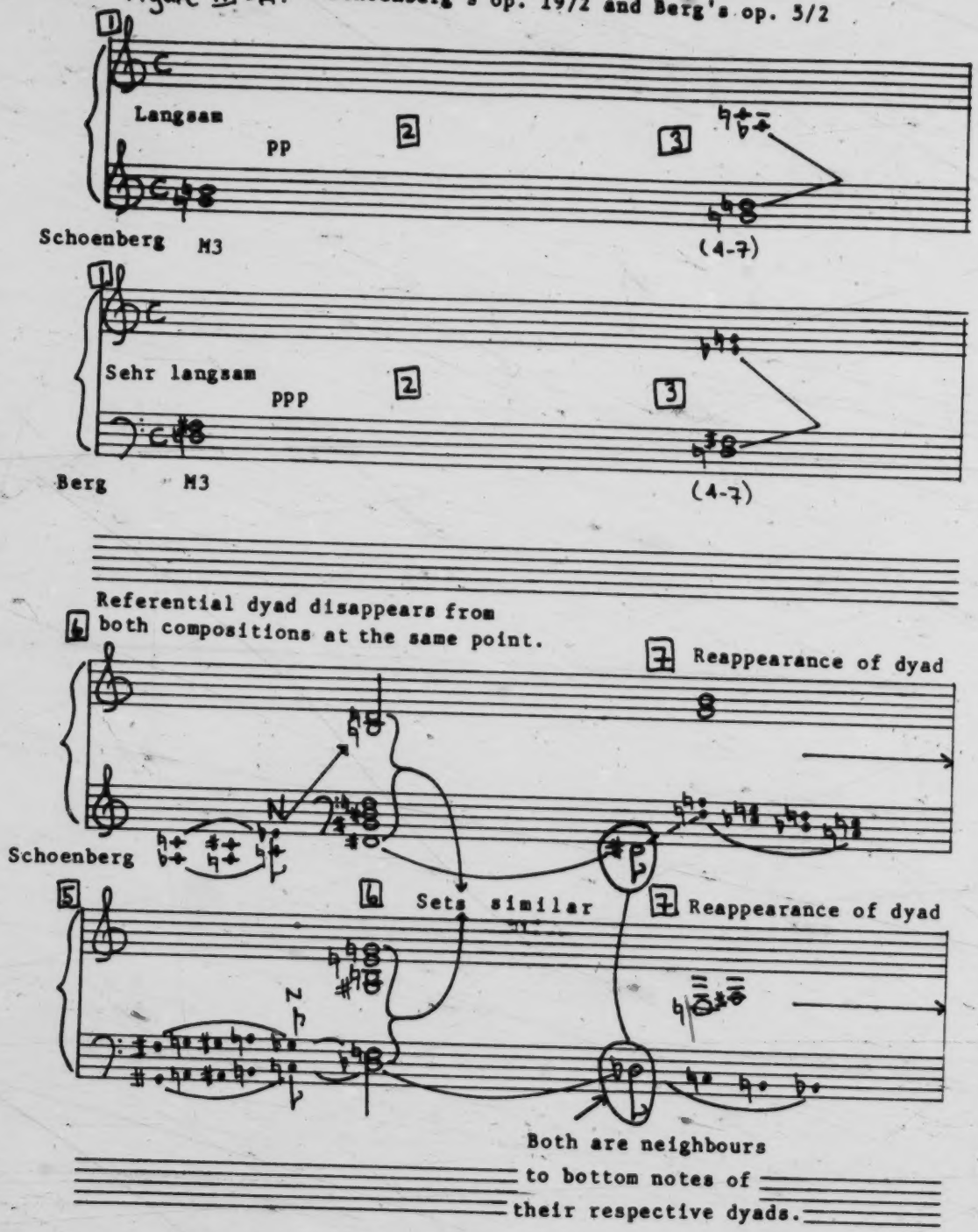
> Comparison of the second piece with Schoenberg's piano piece, op. 19, no. 2, reveals that whereas the latter relies entirely on the motoric motive of the continuously repeated third, the 'espressivo' motive of bars 2-3 being treated as a passing phase without thematic consequence, in Berg's piece a thematic conflict ensues already in bar 2, through the combination of the reiterated piano chords and the melody in the clarinet. That conflict leads ultimately to an alteration in pitch of the 'constant' third D-F sharp, which at the end of bar 5 has become D flat-F natural. The status quo is only restored through the tail-end of the clarinet, bar 7. But that phrase is set against the now diminished 'constant' third on the piano which, according to the composer's expression marks, must be clearly audible so as to underline the condition of permanent conflict of harmony. In Schoenberg's piece the 'constant' third really is constant, from the first to the last bar."[5]

In essence, Redlich argues that Schoenberg's piece is not a model for Berg's because there is a harmonic tension in op. 5/2 which does not exist in op. 19/2. The "conflict" he is referring to in op. 5/2 begins with the superimposition of the clarinet line, with its peculiar insistence on Db and Ab, and the D-F# dyad in the piano part of the first few measures. It does indeed sound strange. But that this "conflict" is permanent, and extends into the last measures of the piece, is debatable. True, Db in m. 5, which extends to the beginning of m. 7, is footnoted with the words "Das "des" im 3. Viertel muss deutlich hörbar sein, ohne von Neuem angeschlagen zu werden" [6] --Berg clearly means it to be accentuated. However, it is also clear that it can be audible only until it is replaced by C at the end of the measure as part of the semitone descent from Db to Bb, a member of the D augmented triad. Redlich also states that the "status quo" (by which he must mean the D-F# dyad) is "only restored through the tail-end of the clarinet, bar 7," but fails to mention that the piano part of mm. 8 and 9 also includes the reiteration of the D-F# dyad, sans Db. In a piece of only nine measures, the first three of which repeat this same dyad throughout, this is a clear return and resolution and there is no conflict between D and Db at the piece's conclusion. Regarding the Schoenberg piece, Redlich's statement that "the 'constant' third really is constant, from the first to the last bar" is puzzling since it clearly disappears for several measures in the middle of the piece.

Comparison of the two pieces reveals that Redlich's comments notwithstanding, Berg's piece is indeed modeled on Schoenberg's (see Figure III-A). After the initial statement, the major third dyad is sounded with the upper neighbour of both members of the dyad, forming set 4-7 (m. 3). The motion rising by semitone to the prolonged chord in Berg's fifth measure (the neighbour chord) is quite similar to that of Schoenberg's sixth. The interval content of the prolonged chords is also similar (they are in fact related by R1). The major third dyad reappears in m. 7, and the bottom pitch of the neighbour chord descends to a pitch which is not a member of the dyad. Bb of the last measures of op. 5/2 combines with D and F# to form the D augmented triad; as do Eb and the G-B dyad at the end of op. 19/2. (Schoenberg further superimposes a D augmented triad at the very end of the piece.) There are differences in the disappearance of the dyad in the middle sections of the pieces--Redlich observes that Berg substitutes a dyad a semitone lower (Db-F) and Schoenberg does not; but in both pieces, the middle section marks a departure from the referential dyad; upon its return at the end, a third pitch is added which creates an augmented triad.

Although focus on D is prevalent throughout the Vier Stücke, the Kopfmotiv of the second piece, like the Kopfmotive of the other three pieces of op. 5 (to which it is closely related), includes a C, rather than a D, augmented triad. (This will be discussed in detail in the last chapter of this study.) In none of the other pieces does the Kopfmotiv sound simultaneously with an accompaniment focused on D; the phenomenon is peculiar to the

Figure III-A: Schoenberg's op. 19/2 and Berg's op. 5/2



Measures set up same way in both compositions when published

second piece, and can be explained by the modeling of the piece on op. 19/2: Berg begins his piece with the Kopfmotiv, as he does the other pieces of op. 5, but he also begins with a dyad of a major third, in imitation of Schoenberg, choosing D and F♯ because D is a focal point throughout op. 5.

In summary, then, the music of the second piece of the Vier Stücke für Klarinette und Klavier seems to be arranged around a focal point of D, with support lent by the pitches of its augmented triad. 4-19 related sets are present, but nonetheless subordinate to the tonal considerations, and the piece appears also to be modeled upon Schoenberg's op. 19/2, with some compromise effected in the unfolding of the Kopfmotiv directly over D.

CHAPTER IV

Analysis of Op. 5/3

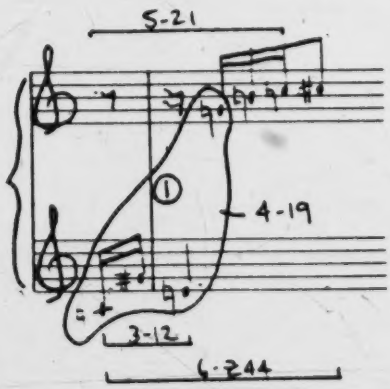
As in the previous two pieces, much of the musical substance of the third piece of the Vier Stücke für Klarinette und Klavier revolves around D and its augmented triad, and 4-19 related sets. As mentioned briefly in the first chapter, the piece has been analyzed in detail by Christopher Lewis in his article "Tonal Focus in Atonal Music: Berg's op. 5/3." Lewis analyses the piece through the application of both set-theoretical and tonal procedures; the latter specifically involves focus on D and members of its augmented triad. Naturally, the analysis of the piece in this study will draw upon his; however, both the notions of Kopfmotiv and 4-19 related sets and the attempt to place each piece of op. 5 within the context of the whole in this study renders the analyses substantially different.

Tonal considerations, the presence of 4-19 related sets (and a limited number of non-4-19 related sets which reinforce the tonal considerations), and changes in texture, density, register and tempo divide the piece into four phrases: 1) (mm. 1-3) Kopfmotiv, followed by focus on D and members of its augmented triad; 2) (mm. 3-8) saturation with 4-19 related sets and focus on pcs which resolve later to members of D augmented triad; 3) (mm. 9-13) ostinati, followed by an integration of the return to D and 4-19 related sets; and 4) rearticulation of D and reiteration and resolution of two previous minor events.

Like the previous two pieces, the third piece begins with a

clearly articulated statement of the Kopfmotiv (see Example IV-1); set 6-Z44 appears without its Z-pair, as in the first piece. The Kopfmotiv is presented linearly in the piano part in m. 1 so that the first three pitches give the augmented triad, the first four set 4-19 and the first five set 5-21. Here, the device is bared; that is, set 6-Z44 and its relationship to set 4-19 is openly displayed in the foreground; the connection between the two sets is less graphic in the Kopfmotiv of the previous two pieces.

Example IV-1: The Kopfmotiv of Op. 5/3



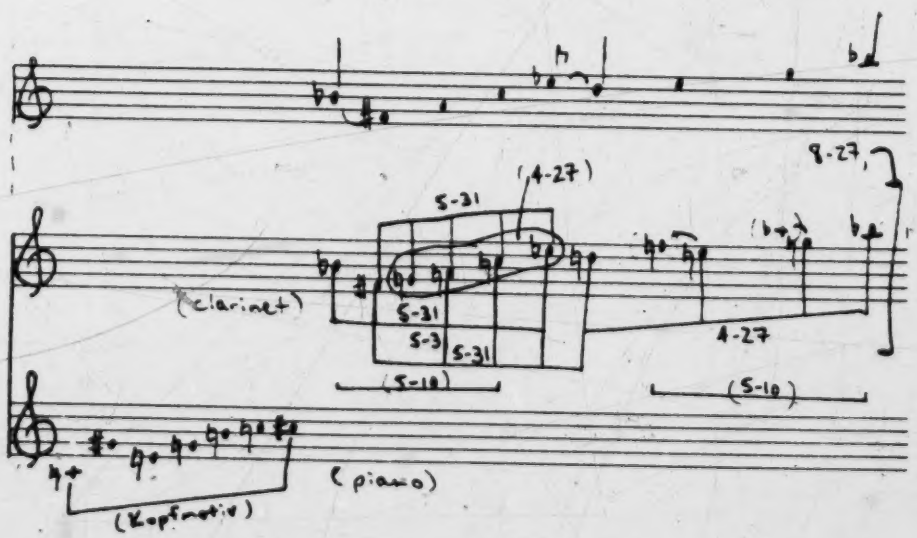
The first phrase is clearly focussed on D and members of its augmented triad. The piano part of the first phrase is a descent, framed by two augmented triads, C E G# and D F# Bb.[1] After the statement of the Kopfmotiv, the piano right hand descends by semitone to F# and Bb at the end of the phrase, while the piano bass line descends by semitone to D. The D augmented triad which concludes the piano part is meanwhile unfolded in the

clarinet part, through an arpeggiation which begins with F# and rises through D to Bb at the end of the line. Structural support is lent to the pitches of the triad in both parts through the reiteration throughout the phrase of three related set-types: set 5-31, its subset 4-27, and the complement of set 4-27, set 8-27. The clarinet part begins immediately after the piano statement of the Kopfmotiv; the pitches which precede D at the midpoint of the line form two interlocking 5-31 sets[2] (see Example IV-2a). The intersection set of the two pentachords (set 4-28, the diminished tetrad) combines with the midpoint D to form a third instance of set 5-31[3] (see Example IV-2b). The pitches of the clarinet gesture from D to Bb, with the exception of the Ab grace note and the very short F, upper neighbour to the E (surely the two least important pitches of the line), combine to give set 4-27, while the entire clarinet line, again with the exception of Ab and F , comprises its abstract complement, set 8-27 (see Example IV-2a). (Also shown in Example IV-2a is the subtle framing of the clarinet D and upper neighbour Eb by set 5-10, which appears both as the first five pitches of the clarinet line, and as the last five pitches.[4]) Sets 5-31 and 4-27 are readily apparent within the piano part as well. The chromatic descent of the piano bass line is partitioned by the reiteration of a repeated motive (set 3-1); the partitioning accents certain pitches (see Example IV-2b) which combine to form two interlocking 5-31s, the intersection set of which is, like that of the interlocking 5-31s found in the first six pitches of the clarinet line, the diminished tetrad (set 4-28). The

likewise accented pitches in the lower voice of the right-hand piano part also give set 5-31, while in the upper voice they give set 6-34, present in its typical cadential capacity (discussed in Chapters I and II), as its last pitch is the Bb which concludes the line (see Example IV-2c). Because of the partitioning of the lines into minor thirds, the piano part naturally also includes many linear overlapping instances of set 4-27 (a subset of both sets 5-31 and 6-34) and of set 4-28. The 4-27 which spans D and Bb in the clarinet part can also be extracted, with the same pcs, from the last five stressed pitches of the piano bassline;[5] one is the retrograde of the other (see Example IV-2d). The pitches of the last three piano trichords of the phrase combine to give set 8-27[6]; this 8-27 is formed from the same pcs as the 8-27 which spans the clarinet part.

Example IV-2: Focus on D and Sets 4-27/8-27, 5-31 and 6-34 in the First Phrase.

a)



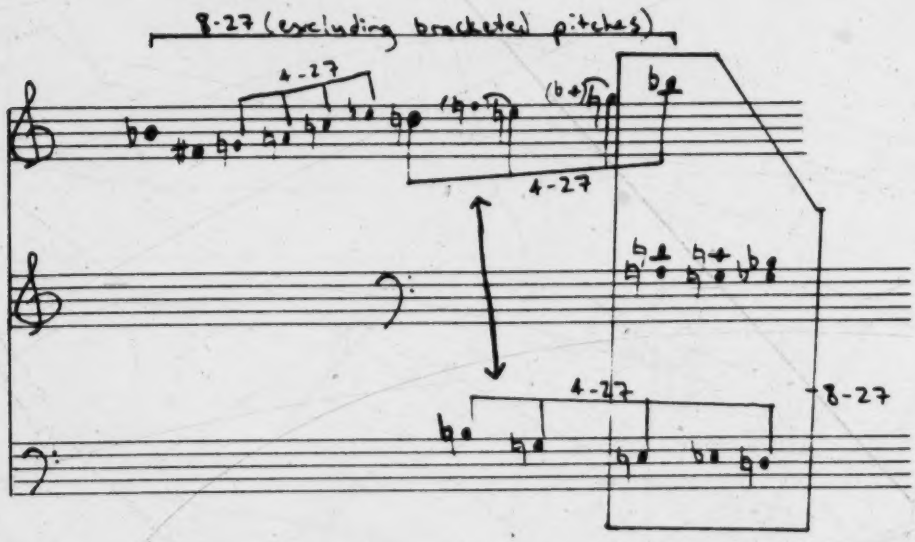
Example IV-2 (cont'd)

b)

c)

Example IV-2 (cont'd)

d)



The musical substance of the first phrase, then, is largely based upon directed motions in the piano part to the concluding D augmented triad and the unfolding of the D augmented triad in the clarinet part. These gestures are supported by emphasis on pitches which combine to give sets 5-31, 4-27 and 8-27. 4-19 related sets are less apparent, appearing only as the Kopfmotiv and the framing augmented triads.

While the D augmented triad, supported by a limited number of recurring set-types, provides the basis for the first phrase of the piece, it disappears entirely in the second phrase. Instead, G is reiterated throughout, as a pedal note in the piano part, while E seems to provide a focal point for the clarinet part, and, to a lesser degree, the right-hand piano part (see

Example IV-3a below). Note that the descending figure F#-F-E which concludes the clarinet line in mm. 7-8 is an echo of the F#-F-E heard in the piano part of m. 6.[7] The fragment Ab-E, repeated twice in the piano part in mm. 6-7, recalls the Kopfmotiv, which also descends from G# Ab) to an E of longer duration (see Example IV-3b), while the reiterated C of the overlying clarinet line completes the reappearance of the C augmented triad of the Kopfmotiv. E is, not incidentally, the most prominent pitch of the Kopfmotiv, as it is held for one-and-one-third beats before then initiating the descent to D in the first phrase. It will be shown that both E and G, prolonged throughout the second phrase, ultimately resolve to pitches of the D augmented triad.

Example IV-3: Focus on Pitches in the Second Phrase Which Resolve to Members of the D Augmented Triad; Derivation of Events From the Kopfmotiv.

a)

Example IV-3 (cont'd)

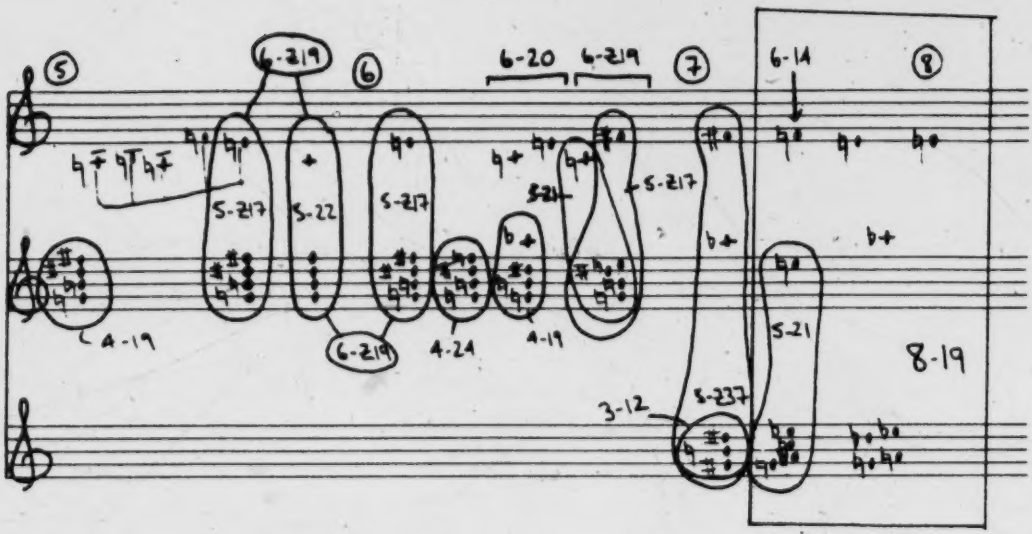
b)

Many 4-19 related sets are also readily apparent in the second phrase (see Example IV-4a). The piano tetrad reiterated throughout m. 5 is set 4-19, and it is surely significant that the pitches of the clarinet and right-hand piano parts that sound against the tetrad, and against the reiterated piano trichord which follows it (set 3-12 in mm. 6-7), form sets which are saturated with 4-19 subsets. (Of these, only the most clearly articulated are given.) After the disappearance at the end of m. 7 of the augmented triad built on G, there are fewer 4-19 related pentachords and hexachords formed; however, the octachord formed by combining the piano and clarinet parts is set 8-19, the complement of the piano tetrad.[8] The five pitches which begin the clarinet line at m. 5 are strongly reminiscent of the piano's first appearance in the first piece of op. 5 (see Example IV-4b).

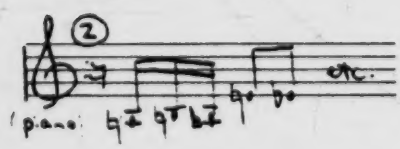
Example IV-4: 4-19 Related Sets in the Second Phrase;

Derivation of Clarinet Motive of M. 5

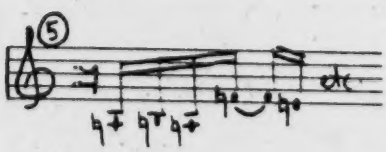
a)



b) Op. 5/1



Op. 5/3



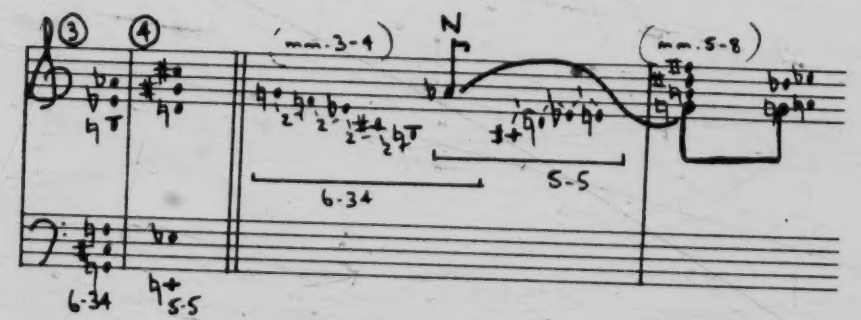
The second phrase, then, derives coherence from several different but connected elements of varying emphases: the prolongation of pitches which will ultimately resolve to pcs of the D augmented triad); allusions to the Kopfmotiv (namely, the C augmented triad included within it); clear articulation of numerous 4-19 related sets; and reference to an event from the first piece of op. 5.

In two of the three piano chords which begin the second phrase of the piece, a pc is emphasized which neighbours the G prolonged throughout the second phrase; the three chords also provide a smooth transition between the first and second phrases. The pcs of the first piano chord give set 6-34 (linearly articulated in the first phrase); the pcs of the second chord combine to form set 5-5. Now, 6-34 and 5-5 are alike in one rather interesting respect (see Example IV-5a). All the pcs in set 6-34, except for one, are of the same whole-tone scale. Likewise, in set 5-5, all the pcs but one form a semitone cluster. The exceptional pc in each of these particular transpositions of the sets is Ab, which "disrupts" the very regular patterns of their construction. It was observed above that G is held as a pedal note throughout the second phrase; the Ab/G# a semitone above it, common to the two chords which precede the pedal G and slightly apart from them in terms of consistency of structure, seems to function as an upper neighbour to G. The third piano chord (set 4-19) combines with the clarinet's first pitch at m. 5 to form set 5-26, the only pentachord which contains both set 4-19 and 4-27 (see Example IV-5b). Inasmuch as

the first phrase includes extensive use of set 4-27, and the second phrase devolves from set 4-19, the presence of set 5-26 here seems significant. That it is a subset of set 6-34, the first of the three chords, also seems noteworthy. It is also interesting to note that with the addition of the first clarinet pitch at m. 5, internal patterning is apparent in the three chords, as Lewis has shown[9] (see Example IV-5c).

Example IV-5: The Three Piano Chords Which Begin the Third Phrase

a)



b)

Example IV-5 (cont'd)

c)

The third phrase, like the second, seems to revolve around several means simultaneously: the ostinati of the first three measures, the derivation of the clarinet line from that of the first phrase, and the return to D and reappearance of 4-19 related sets at the conclusion of the phrase; these will be discussed in turn below.

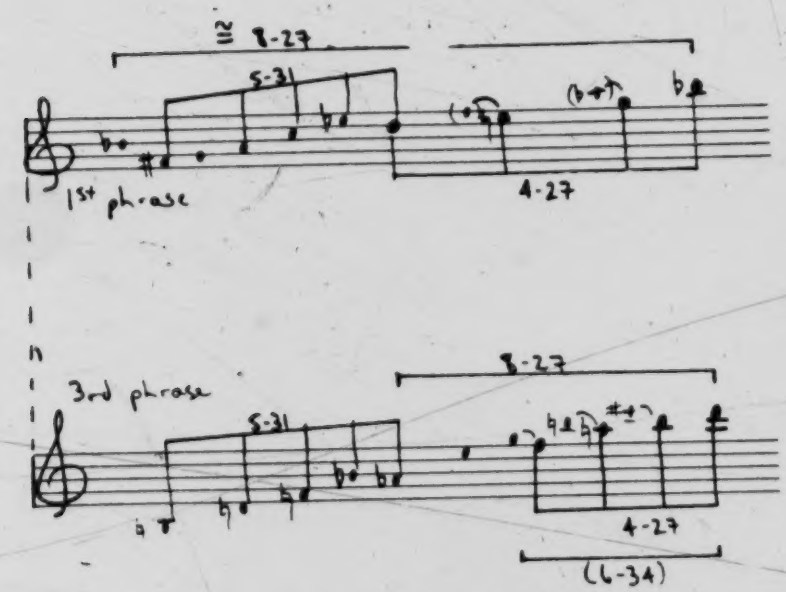
The first three measures of the phrase revolve around ostinati in both the clarinet and piano parts (see Example IV-6). The pitches of the clarinet ostinato give set 5-31, a set-type prominent in the first phrase, while the pitches in the piano left-hand give set 4-16. In m. 12, one pitch is added which combines with set 4-16 to create two interlocking instances of the set; all five pitches are contained within the chord held at the pause at the end of the phrase in m. 13. The right-hand piano part is not an ostinato, although it begins with set 5-31 (which is taken over by the clarinet). However, three pitches remain constant throughout--E, G and F, which are transferred into the clarinet part to mark the departure from its ostinato at m. 12.

Example IV-6: Ostinati of the Third Phrase

The clarinet lines of the first and third phrases are very similar. Contour is roughly preserved, and analysis of the set content reveals more of the same patterning through sets 4-27/8-27 and 5-31 as in the first phrase (see Example IV-7). Note that 4-27 and 5-31 are prominent in roughly the same places in both phrases, and that the pitches of the set 4-27s which encompass the last pcs of both lines are consistently approached from above by the interval of a second. Bb is the goal of the clarinet part of the first phrase, and D of the third phrase. Lewis observes that the arrival of D in the clarinet of m. 13 seems to complete the clarinet line of the first phrase.[10] There is a reference in the clarinet line of the third phrase to a gesture in the piano part of the first phrase which further supports D as goal of the clarinet line--the last six pitches of

the line form set 6-34, again given linearly, as a cadential figuration, the last pc a member of the D augmented triad (see Example IV-3 for the previous instance).

Example IV-7: Comparison of the First and Third Phrases



Thus it is at the end of the third phrase that D returns. A sketch of the piano bass from the beginning of the piece to the end of the third phrase reveals the resolution in m. 13 of G, prolonged as the lowest pitch throughout both the second and third phrases, to F♯, member of the D augmented triad (see Example IV-8). The resolution occurs simultaneously with the arrival of D in the clarinet part. It is surely significant

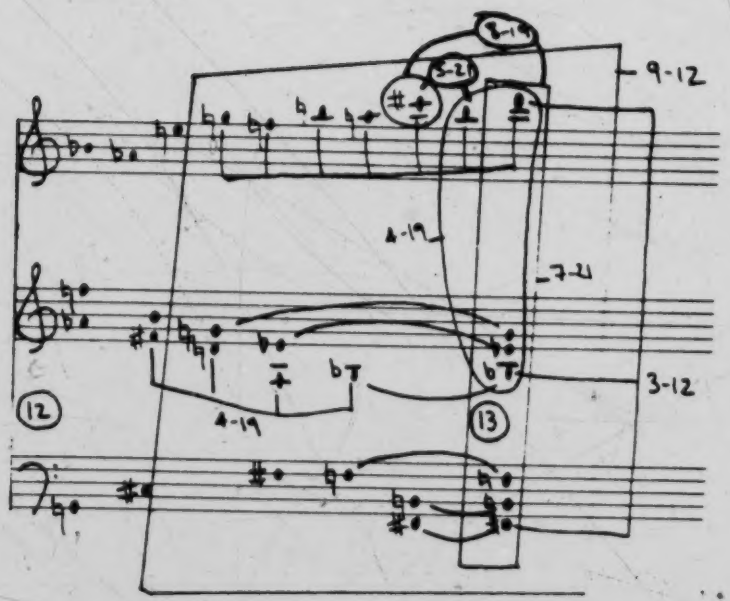
that while G is sounding throughout the second phrase and the first part of the third phrase, there is no apparent focus on D; but with the arrival of D3 in mm. 12-13, G descends to F♯.

Example IV-8: Bassline Resolution to Member of D Augmented Triad in the Third Phrase.

4-19 related sets are apparent in the third phrase, in conjunction with the return of D in m. 13 (see Example IV-9). The B♭ upon which the right-hand piano part rests is the final pitch of a linearly expressed 4-19, which includes the D augmented triad. The pitches from the second beat of m. 12 through the pause give set 9-12; the sonority held at the pause in m. 13 is set 7-21; the clarinet's last three pitches, C♯, B and D, combine with the piano's pause chord to give set 8-19. Both 4-19 and 5-21 are clearly articulated as uppermost pitches

of set 8-19, which is, as in the second phrase, a cadential gesture.[11]

Example IV-9: 4-19 Related Sets in Mm. 12-13



The structure of the last phrase of the piece is extremely simple. The phrase seems to derive coherence solely from focus on D, and not from a pattern of sets (see Example IV-10a).[12] The piano part is arranged symmetrically around D for the duration of the phrase, while the clarinet part descends through two octaves to the last note of the piece, D, by whole-tone and semitone respectively. After the complex, climactic structure of

the third phrase, this is whimsical and disarming, and seems almost an afterthought. The function of the last phrase seems simply to be to resolve the prolonged E of the second phrase and to reaffirm focus on D in the piece, partly through the rearticulation of the clarinet C#-B-D of mm. 12-13. E, prolonged throughout the second phrase, reappears, descending to D at the very end of the last phrase (see Example IV-10b). The similarity in execution of this descent and the descent from F#1 to E in the clarinet which concludes the second phrase supports the resolution that the last phrase of the piece provides resolution for E--both are fluttertongued. The clarinet descent in m. 16 is preceded by the reiteration of two pcs, C# and B, which also precede D at the end of the third phrase (see Example IV-10c).

Example IV-10: Structure of the Final Phrase

a)

Example IV-10 (cont'd)

b)

c)

In conclusion, although the musical substance of each phrase devolves from several means simultaneouly, it is clear that focus on D and 4-19 related sets are prevalent in the third piece of

op. 5--the goal of the piano part of the first phrase is clearly the D augmented triad, simultaneously unfolded in the clarinet part; the second phrase devolves almost entirely from 4-19 related sets, with emphasis on pcs which ultimately resolve to members of the D augmented triad; the third phrase concludes with an integration of the two means, resolving one of the pcs prolonged throughout the second phrase, and also invoking (almost literally) earlier musical events; and the fourth phrase is simply and clearly centred around D, which concludes the piece and also resolves the other pc prolonged throughout the second phrase.

CHAPTER V

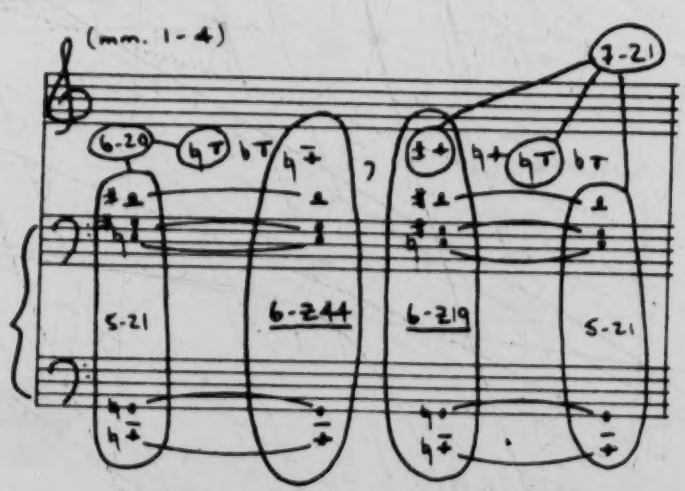
Analysis of Op. 5/4

The musical substance of the fourth piece of the Vier Stücke für Klarinette und Klavier revolves around the same materials as the earlier pieces. 4-19 related sets are in evidence throughout, while focus on D is less apparent. There are sections of the piece which are difficult to place within either context; however, as will be shown, the piece is spanned by a well-defined pattern formed from clearly articulated members of the 4-19 set-group. The piece divides into five phrases: mm. 1-4, mm. 5-9, mm. 9-12, mm. 13-17, and mm. 18-20; divisions are articulated by rests, changes in texture, tempo and dynamics, and by set materials.

Like the previous three pieces, the fourth opens with a statement of 6-Z44, and here, as in the second piece, it is accompanied by its Z-pair, set 6-Z19. The Kopfmotiv is less prominently displayed in this piece than in the others, however, as it is surrounded by other 4-19 related sets which are at least as readily apparent in the music (see Example V-1). Mm. 1-4 consist of two descending clarinet gestures over a reiterated chord in the piano part; the pitches of the chord form set 5-21. In mm. 1-2, the clarinet descends by semitone from B to A; A combines with the piano pentachord to form set 6-Z44. In mm. 3-4, the clarinet descends by semitone from C♯ to B♭, expanding the first clarinet gesture; C♯ combines with the piano pentachord to form 6-Z19. 6-Z44 and 6-Z19 thus are heard successively in

the middle of the first phrase, and for the first time in op. 5, the Kopfmotiv is given vertically, rather than horizontally. The B which begins the first clarinet motive combines with the piano pentachord to give set 6-20, while B and C♯ of the second clarinet descent give set 7-21 when combined with the piano part.

Example V-1: The Kopfmotiv of Op. 5/4



There are, I think, two reasons for the Kopfmotiv being less strongly articulated at the beginning of the fourth piece than in the previous three pieces. First of all, perhaps it is precisely because it has been so clearly given three times previously that it is less clearly articulated here. The Kopfmotiv of the fourth piece is, after all, formed from the same pcs as the Kopfmotive of earlier pieces--the transposition of 6-Z44 which appears here is the same as that of both the first and second pieces; likewise, 6-Z19 is formed from the same pcs as the transposition of the set which initiates the second piece. As in the third piece, set 4-19 and set 5-21 are formed from consecutive pcs (see

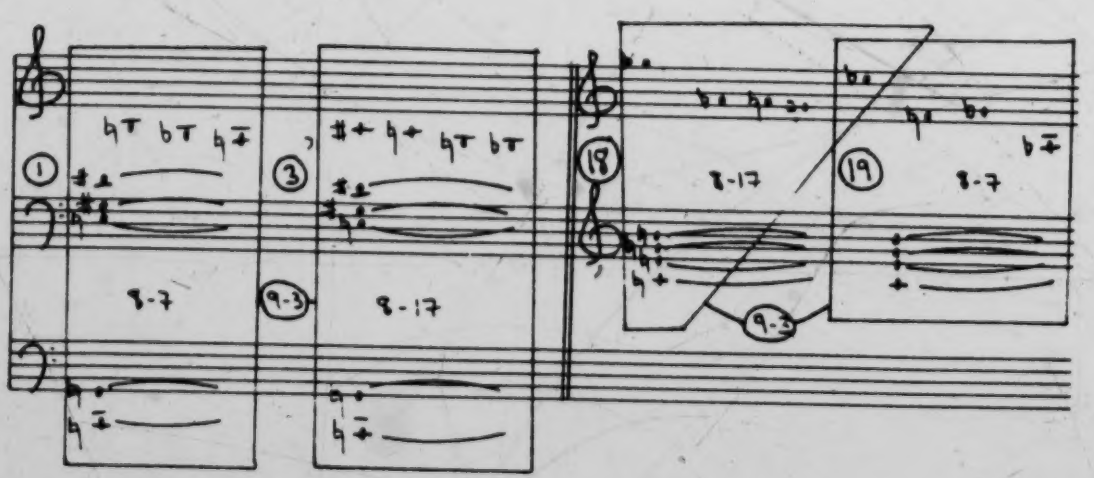
Example V-2).

Example V-2: Sets 4-19 and 5-21 Given By Consecutive Pcs in the Kopfmotiv

Second, the first phrase, including the Kopfmotiv, is part of a construct of 4-19 related sets which involves the first, middle, and last phrases. The first and last phrases are closely related: the pitches of each phrase combine to give set 9-3; each set is grouped into two adjacent octachords, set 8-7 and set 8-17 (see Example V-3) The intersection set of each pair of adjacent octochords is set 7-21 (not the transposition of the set given in Example V-1). Set 9-3 of the last phrase is T8 of 9-3 in the first phrase, and this produces a number of interesting invariances. At T8, set 9-3 holds seven pcs invariant (which represents the maximum transpositional invariance possible for set 9-3); they combine to give set 7-21 (again not the same transposition of the set given in Example V-1). It is

interesting that the two pitches of the first 9-3 that are not held invariant are A and C♯, which in mm. 1-4 create the 6-Z44 and 6-Z19 of the Kopfmotiv respectively when combined with the piano pentachord.) At T8, both 8-7 and 8-17 hold set 6-20 invariant (again, this represents the maximum transpositional invariance that can occur for each octachord). The transposition of 6-20 held invariant between the beginning and ending 8-7s and the beginning and ending 8-17s is the same, and is formed from the same pcs as the first hexachord in the piece.

Example V-3: Pitch-Class Content of the First and Last Framing Segments

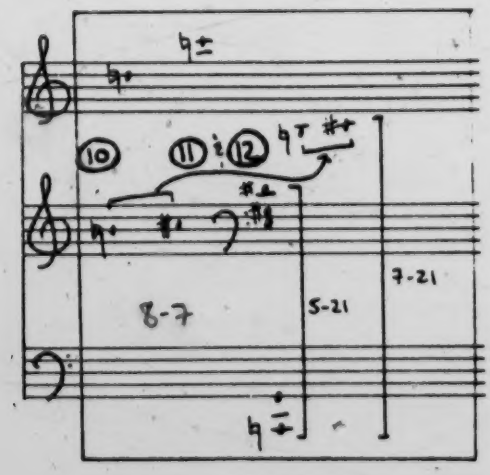


The last two measures of the middle phrase of the piece (mm. 11-12) are also part of the frame (see Example V--a). The high D and C of the clarinet part and the B and C♯ of the piano part

from the end of m. 10 combine with the piano pentachord (set 5-21) at m. 11 to form set 8-7, T4 of set 8-7 in the first phrase. B and C♯ of the piano part are then transferred into the clarinet, and combine with the pentachord to form set 7-21, with the same pcs as the transposition thereof in mm. 3-4. The reappearance of set 5-21 (and 4-19) helps link the framing sections (see Example V-4b). The piano pentachord of the opening measures (set 5-21) reappears in mm. 11 and 12. (Because 8-7 at T4 holds 6-20 invariant, the five 5-21 subsets of set 6-20 are also held invariant.) The last five pitches of the piece, which also give set 5-21, hold set 4-19 invariant from the beginning and midpoint 5-21s, to which they are related by T4. This 4-19 appears as both as the lowest four pcs at the end of the piece and as the bottom pcs of the chordal 5-21 which initiates the piece.

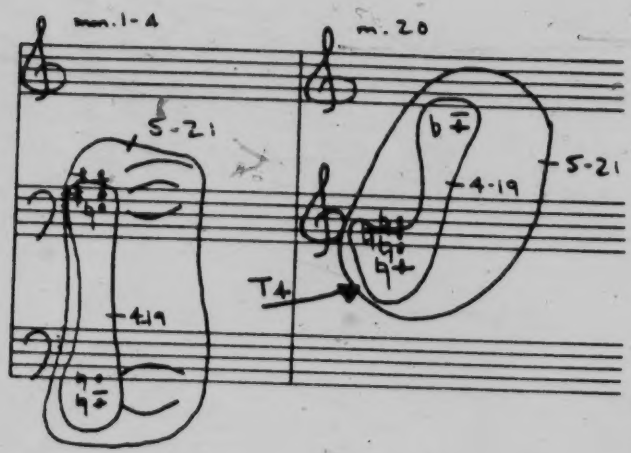
Example V-4: The Middle Segment of the Frame

a)



Example V-4 (cont'd)

b)



The transpositional relationship among certain of the sets of the frame sections is significant. It was noted above that set 8-7 in mm. 11-12 is T4 of set 8-7 at the beginning of the piece. As the set 8-7 at the end of the piece is T8 of the initial 8-7, it is thus T4 of the midpoint 8-7. Completion of the sequence (transposition of the final 8-7 of the piece up four semitones) gives the pcs of the initial set 8-7. This large-scale cyclical transformation effected through T4 mimics the structure of the augmented triad--both the pattern of the frame of the piece and the augmented triad are defined by the division of the octave into three equal parts of four semitones.

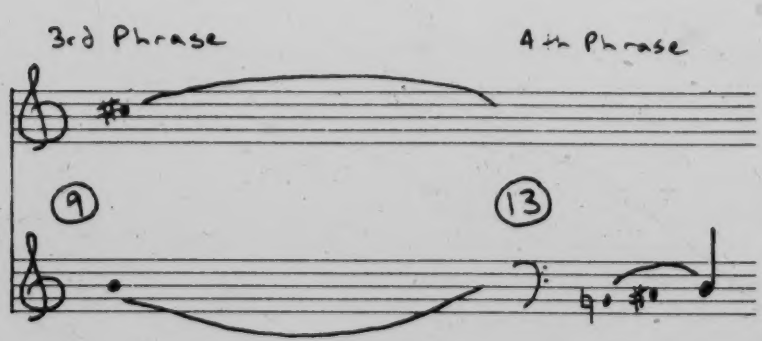
The remaining music of the fourth piece is most successfully analyzed against the background of the framing sections. In the section of the third phrase (mm. 9-10) leading up to the measures

which form the middle framing section (mm. 11-12), 4-19 related sets are not apparent; rather, the music is arranged around two pitches, B and C#, which carry over into mm. 11 and 12 as part of set 8-7 and resolve to D at the beginning of the fourth phrase (see Example V-5a). B and C# are members of a piano tetrad (set 4-25) reiterated throughout the first part of the phrase (see Example V-5b). The literal complement of set 4-25 (set 8-25) appears above the tetrad as the clarinet part of m. 9 and the first part of m. 10. G of the right-hand piano part and F of the left are arranged so that they are each a tritone away from C# and B respectively. At the end of the clarinet statement of set 8-25, the piano tetrad is rearranged, so that the same pcs are retained, but G and F are exchanged, so that each is a major third away from B and C# respectively. Pitches are then substituted for G and F (G# and E) which are a minor third from B and C# respectively; at the end of the measure, B and C# sound alone. The narrowing of the intervals between B and C# and the pitches above and below them thus creates a wedge formation, of which B and C# together are both the core and apex. The pcs are (abstractly) symmetrical around the last and highest pitch of the clarinet part, C, which is, like B and C#, part of the midpoint 8-7 in mm. 11-12. While the sets articulated in these measures are not 4-19 related sets as we have defined them, several share some interesting secondary similarities with set 4-19. Set 8-25 (the clarinet line) is arranged so that the first seven pitches form set 7-28, while the complement of set 7-28 (set 5-28, as the chordal 4-25 with coinciding clarinet pitch) is heard five times

over the course of the passage. 5-28, 5-15 and 5-33 are the three five-note supersets formed by combining set 4-25 with another pc. 5-33 is formed thus twice in the measure when set 4-25 coincides with Bb in the clarinet part. The complement of set 5-33 (set 7-33) is given as seven consecutive pitches in the clarinet statement of set 8-25. Set 5-33 has an interesting relationship with set 5-21--both sets contain the maximum number of ic 4 possible in a pentachord (four); likewise, set 7-21 and set 7-33 contain the maximum number of ic 4 possible in a septachord (six). Set 4-25 is one of only two tetrads composed solely of members of a single whole-tone scale; therefore, six of the eight pitches of set 8-25 heard against the chordal 4-25 form pentachords (sets 5-15 and 5-28) with similar construction to set 4-19--that is, pitches from one whole-tone scale equal to their cardinalities minus one.

Example V-5: Significance of B and C# in the Third Phrase

a)



Example V-5 (cont'd)

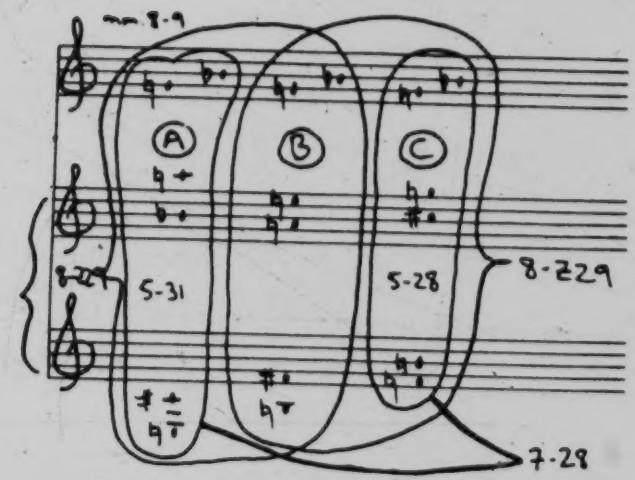
b)

Both the set content and the wedge formation of the third phrase are foreshadowed in the last three chords of the second phrase, referred to hereafter as A, B and C respectively (see Example V-6). Chords A and B, repeated throughout m. 8, together form set 8-Z29, as do chords B and C. The pitches which these two overlapping statements of 8-Z29 do not have in common (chords A and C) combine to form set 7-28, prominent in the third phrase. Chord C (set 5-28) is the complement of chords A and C combined. The preparation for the wedge formation of the third phrase in the second is shown in Example V-6b. The four pitches of the piano part of Chord B are arranged as two perfect fifths separated by a minor third. The piano tetrad which follows (set 4-25) and extends into the third phrase, is, as noted above, constructed as two tritones. The narrowing of intervals around

the B-C♯ core thus begins already in the second phrase of the piece.

Example V-6: Preparation for the Third Phrase in the Second Phrase

a)



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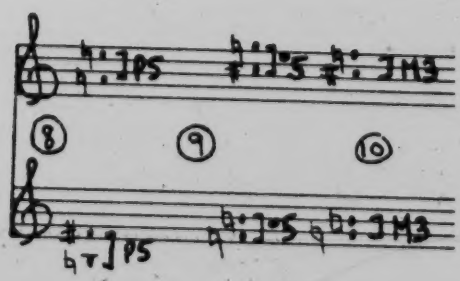
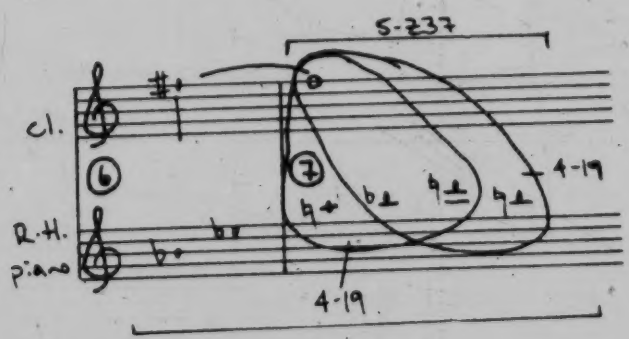


We now turn to the first part of the second phrase (mm. 5-8), which is particularly difficult to understand.

Segmentation reveals minimal appearance of 4-19 related sets (or indeed, of any recurring set), although they do coincide with the highest pitch of the phrase, the piano D in m. 7 (see Example V-7a). The last beat of m. 6 and the first two beats of m. 7 in the clarinet and right-hand piano part together form set 6-Z44; and the first beat of m. 7, which is the high point of these two measures in the piano part, includes two interlocking 4-19s, which together give set 5-Z37. The pitches of the second beat of m. 7, including the left-hand piano part, give set 6-14--with pcs identical to thoses of another appearance of the set in the fourth phrase (see Example V-7b); set 5-Z17 is formed from the upper five pitches of the chord both times.

Example V-7: 4-19 Related Sets in Mm. 6-7 of Second Phrase

a)



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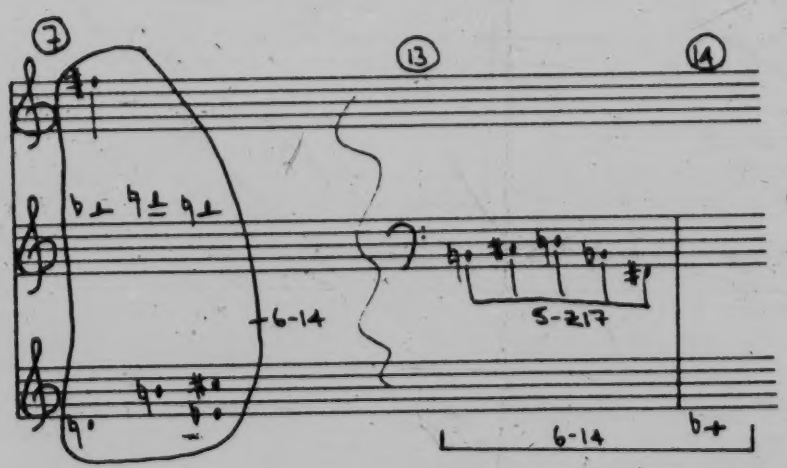
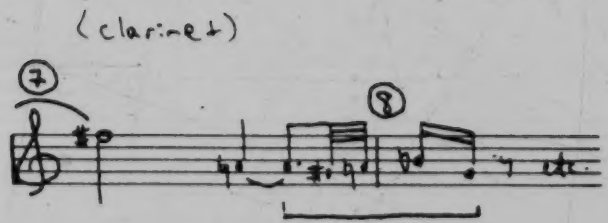


Likewise, all three pitches of the D augmented triad are emphasized throughout mm. 5-7, if only slightly more than the surrounding pitches. The first seven pitches of the solo clarinet line at m. 5 give set 7-1; the seventh pitch is D. D appears to be the goal of the line, approached from above and below by semitone, downward from the initial F# and upwards from C a few notes later (see Example V-8a). After D is sounded at m. 5, the clarinet line leaps away to Ab; the cadential-like figure in the clarinet at the end of m. 7 supports the Bb-G fragment repeated throughout m. 8 as the goal of the line (see Example V-8b). Bb and G eventually become part of set 5-28 at the conclusion of the second phrase. At m. 6, the piano right-hand enters, and Bb is emphasized, like D in the clarinet line in m. 5, as the goal of the preceding pitches by approaches from above and below by semitone (see Example V-8c); it is further emphasized by the subsequent leap through an octave to the Bb above. The high point of the line, D, follows immediately, and then descends to F#, which is made prominent through its repetition and symmetrical framing by F and G. A sketch of the left-hand piano part reveals a motion which begins with Bb and rises by semitone through C# at the beginning of m. 7 up to Eb through the measure, emphasizing both C# and Eb at the end (see Example V-8d). The two pitches symmetrically frame the D of the piano-left hand at the beginning of m. 8. D in turn moves by semitone to C#, which is a member of the 8-Z29 constructions at the end of the phrase.

Example V-8: Focus on D in the Second Phrase

a)

b)



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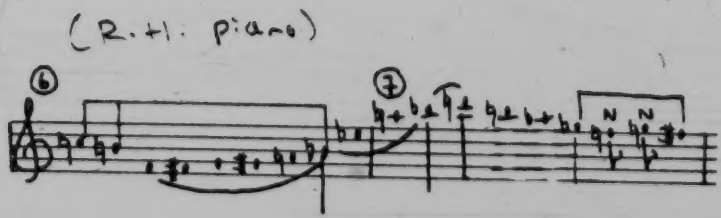
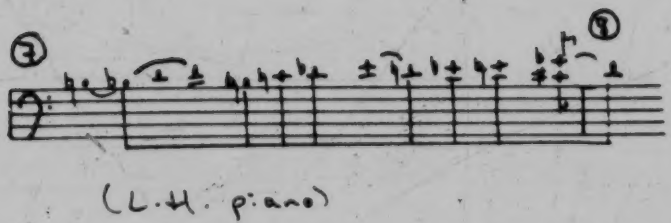


Example V-8 (cont'd)

d)



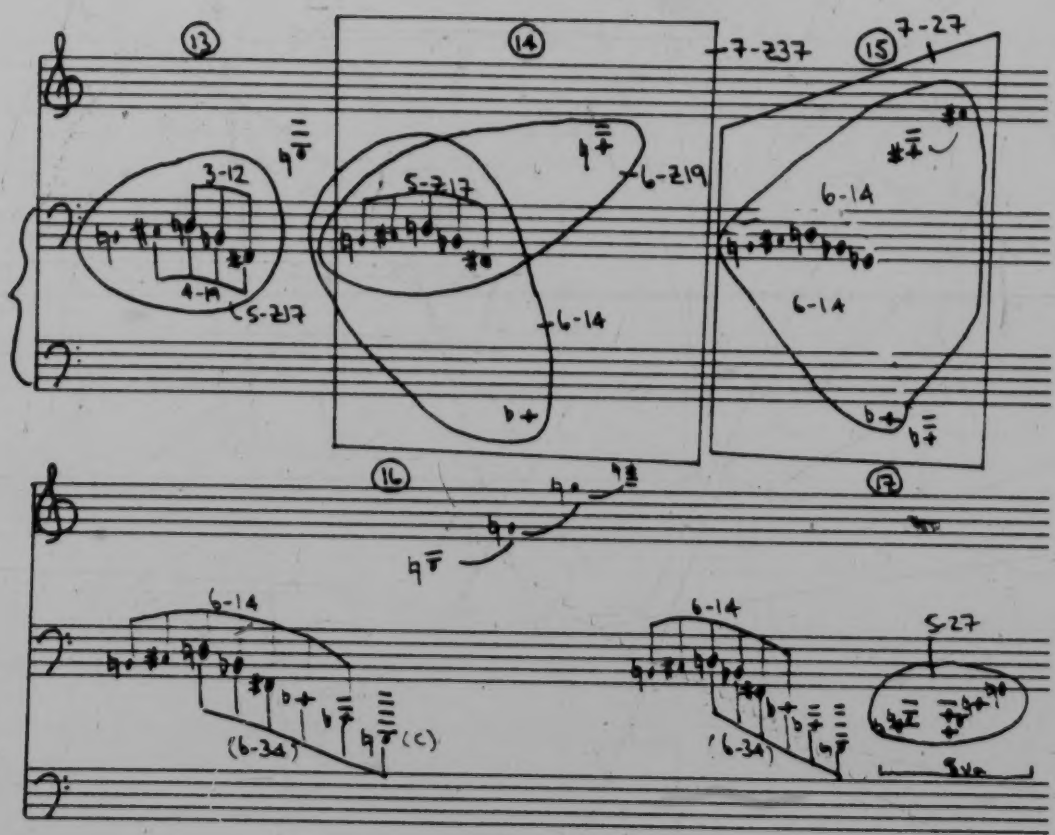
But to state that the musical substance of this passage revolves around a focal point of D and/or 4-19 related sets based on the above evidence attempts to simplify the music to too great a degree. The problem of analysis here is compounded further by the independence of the four voices. When the right-hand piano part reaches D in m. 7, the left-hand piano and clarinet parts do not support D as the goal; when the left-hand piano part moves to its apparent goal of D at the beginning of m. 8, the other parts again are not at that point supporting D as a focal point. It is difficult to hear D as a focal point in this passage when all four voices sound together, as of course, is required. Ultimately, these four lines will solidify into chords which are symmetrically arranged around B and C# in the third phrase. A linear summary of the second phrase is given in Example V-9.

Example V-9: Linear Analysis of the Second Phrase

The musical substance of the fourth phrase of the piece, unlike the second phrase, quite clearly revolves around both focus on D and 4-19 related sets. The fourth phrase is the climax of the piece, and pcs which were the foci of previous phrases are incorporated into it. The first two notes of the phrase, B and C♯, prevalent in the third phrase, are immediately followed by a statement of the D augmented triad; they combine with it to form set 5-Z17. This transposition of 5-Z17, with D augmented triad prominently displayed, is then repeated four times during the phrase (see Example V-10). Over each of the first four occurrences of the set, a four-note semitone clarinet figure (E,F,F♯,G) is heard, the rhythmic emphasis shifted

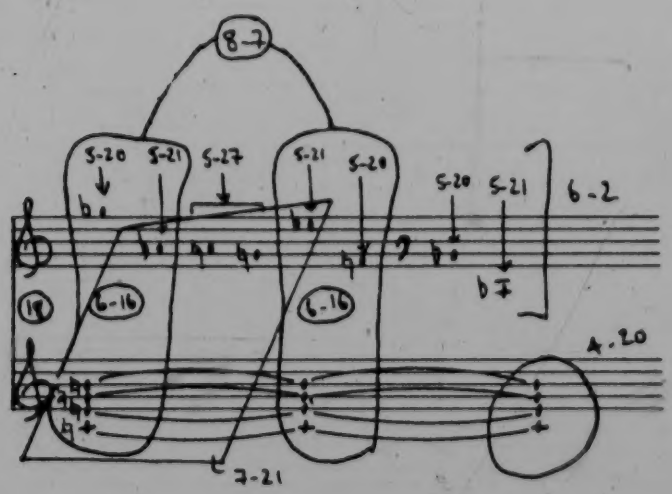
slightly each time, so that each pitch is in turn made prominent, while with each statement of 5-Z17, one more note is added in the bass. The set constructions which result from combining 5-Z17 with other events in the fourth phrase are also given in Example V-10.

Example V-10: Focus on D and its Augmented Triad and 4-19 Related Sets in the Fourth Phrase



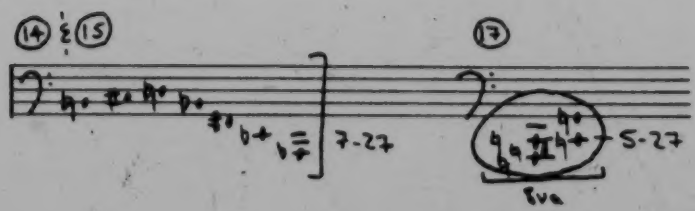
Finally, the last phrase of the piece is at once part of the frame of the piece (as discussed above and shown in Example V-3) and an autonomous collection of pitches (see Example V-11). The phrase consists of a six-note clarinet figure (set 6-2) over a piano tetrad (set 4-20); the first two pcs of the clarinet figure are repeated as the last two pcs of the line. The pentachords formed by combining in turn clarinet pitches (before the rest) with the piano accompaniment create a palindrome: 5-20 5-21 5-27 5-21 5-20. The pentachords combine to give 4-19 related sets. The set formed by combining the three middle pentachords (5-21, 5-27 and 5-21) is set 7-21. The adjacent 5-20s and 5-21s form set 6-16 twice, and the union of the two 6-16s gives set 8-7 (not, however, the same 8-7 given as part of the frame earlier in the chapter).

Example V-11: 4-19 Related Sets in the Fifth Phrase



While the second, third and fourth phrases flow into one another, there are sharp breaks between the fourth and last phrases (and between the first and second phrases). The one connection between the fourth and last phrases is the appearance of two complementary sets, which are not, however, 4-19 related (see Example V-12). Set 5-27, located at the heart of the palindrome of the last phrase, is formed from the same pcs as the cluster of low bass notes in m. 17; its complement, 7-27, is heard in m. 15 as 5-Z17 plus two other pcs.

Example V-12: Linking of the Fourth and Fifth Phrases



The fourth of the Vier Stücke für Klarinette und Klavier, then, presents something of a paradox to the analyst--on one hand, it is contained within a frame clearly defined by 4-19 related sets and transformations by T4 thereof; on the other hand, it contains some of the most enigmatic, difficult-to-analyze passages in op. 5. The operation T4 reveals the most manifest links among 4-19 related sets; in the last piece of op.

5, it is articulated in the music through consistent transpositions of the framing sets. In this sense, the fourth piece represents something of a summation of set procedures employed throughout the clarinet pieces. However, the tonal implications of the fourth piece are extremely difficult to understand within the context of op. 5. In only one phrase of the fourth piece is the D augmented triad clearly stated (the fourth phrase), while another phrase (the second) emphasizes D only slightly more than the surrounding pitches. The phrases which comprise the frame give, oddly enough, a fleeting tonal impression of C. But if C is thus the focal point of the fourth piece (and this is not at all supported by the music of the non-frame sections), why is it established as such here (however limitedly) when it was not a focal point of any of the earlier music of op. 5?

Answers to this must be left to the last chapter, in which connections among the four pieces are analyzed. Of the fourth piece we can at present simply conclude that most of its musical substance is based on the same means as the previous pieces of op. 5, namely, focus on D and the presence of 4-19 related sets, although the latter are much more in evidence than is the former.

CHAPTER VI

Connections Among the Pieces

In the previous chapters of this study, it was shown that most of the music in the Vier Stücke für Klarinette und Klavier is arranged around a focal point of D and other members of its augmented triad and/or 4-19 related sets. This part of the study is an attempt to demonstrate that there are relationships among the Vier Stücke that are not limited to common tonal focus and set materials. There is a deliberate sequence of musical events that depends upon the order of the pieces, facilitating a real-time analysis, one which "in addition to accounting for the composition of and relations among certain pitch configurations, account[s] also for the order in which these configurations are presented in context."[1] The Kopfmotiv will be discussed in the context of real-time analysis, as will the dovetailing which occurs between the beginnings and endings of consecutive pieces, and the resolution or expansion of events from one piece to the next which occurs on two particularly notable occasions. It will also be shown that op. 5 divides into two pairs of non-consecutive pieces.

The analysis of each piece begins with description of the Kopfmotiv. In summary (see Example VI-1): in the first piece, set 6-Z44 is formed from the first six clarinet pitches (C Eb E G Ab A); in the second piece, set 6-Z44 appears again in the clarinet, with the same pcs as in the first piece, but preceded by its Z-pair, set 6-Z19, also in the clarinet part; in the third

piece, set 6-Z44 is formed from the first six pcs of the piece (C C♯ E G G♯ B); and in the fourth piece, it appears with its Z-pair, as in the second piece, and with the same pcs, but in two consecutive vertical statements.

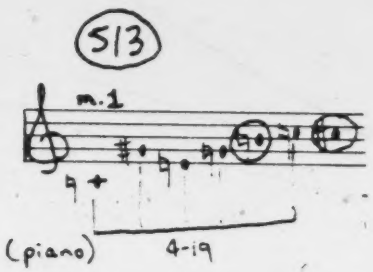
Example VI-1: The Kopfmotiv of op. 5

There are a number of interesting relationships articulated by transposition and changes in the ordering of the Kopfmotiv from piece to piece that reflect significant events in the music. First, in the second piece, the addition of set 6-Z19 to set 6-Z44 adds one pc to the Kopfmotiv--Db. We recall from Chapter III (p. 37) that this pc is prolonged at length in the midsection of the piece, as a lower neighbour to D, the focal pc. Second, the Kopfmotiv of the third piece gives the first new transposition of set 6-Z44 in the pieces; it is T4 of the previous sets 6-Z44, and set 4-19 is held invariant, as Forte has noted[2] (see Example VI-2a). Set 4-19 is given as a segment of consecutive pitches in the Kopfmotiv for the first time in the third piece, and is given thus again in the fourth piece. The two variant pcs in the Kopfmotiv of the third piece, B and C#, are also significant in both the third and fourth pieces (see Example VI-2b). In Chapter IV (p. 62), the local emphasis of D in the third and fourth phrases of the third piece, heralded by the presence of B and C#, was remarked upon; and in Chapter V (pp. 72-73, Example V-5) it was observed that in the fourth piece, B and C# also herald the arrival of D, but are prolonged further: they are the focal pcs of the third phrase, and in the fourth phrase, combine with the D augmented triad to form a sonority reiterated throughout. The passing emphasis of B and C# at the end of the third piece seems (with hindsight) to foreshadow the greater emphasis on those pcs in the fourth piece, and such an interpretation is supported by the similarity of the performance markings--the repeated pcs in both the last phrase of

the third piece and the midsection of the fourth piece are marked "Echoton". Note also that in the first phrase of the fourth piece, there is a veiled reference to the B-C# of the third phrase, as the two clarinet descents begin with B and C# respectively (see Example VI-2c). Finally, the Kopfmotiv of the fourth piece includes the same pcs as the Kopfmotiv of the second piece, but the difference in ordering is significant (see Example VI-1b & 1d). In both pieces, sets 6-Z19 and 6-Z44 have five pcs in common, which combine to give set 5-21. Set 5-21 cannot be formed from consecutive pitches in the Kopfmotiv of the second piece, but in the fourth piece, the Kopfmotiv is ordered so that set 5-21 is clearly segmented as the piano pentachord.

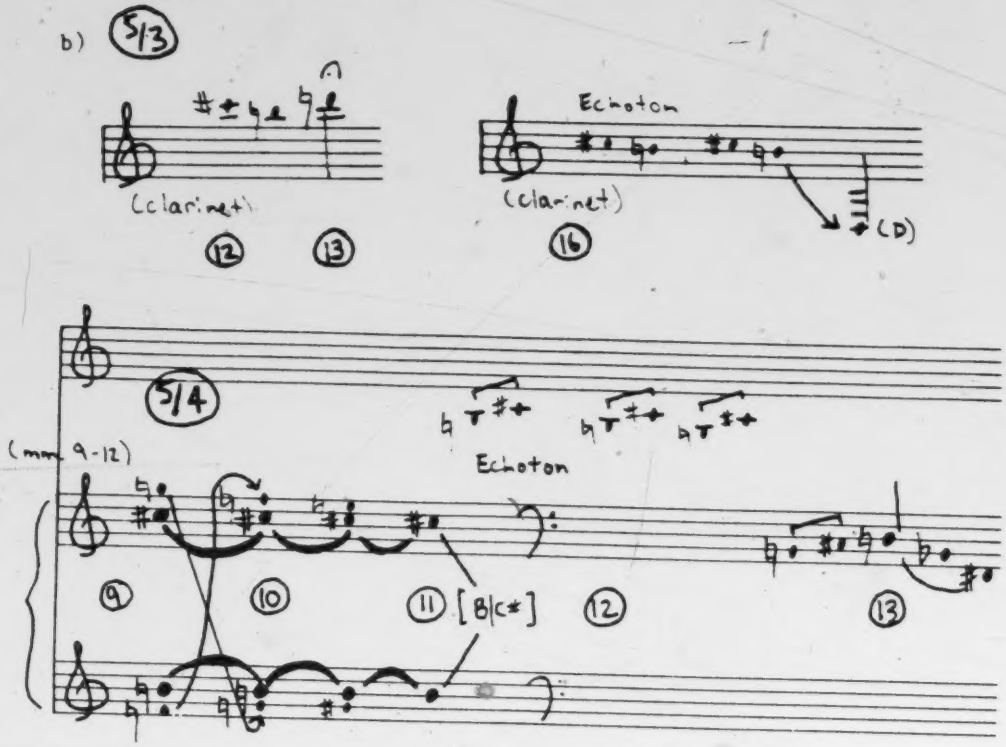
Example VI-2: Significance of Transposition and Changes in Ordering of the Kopfmotiv of op. 5

a)



Example VI-2 (cont'd)

b)



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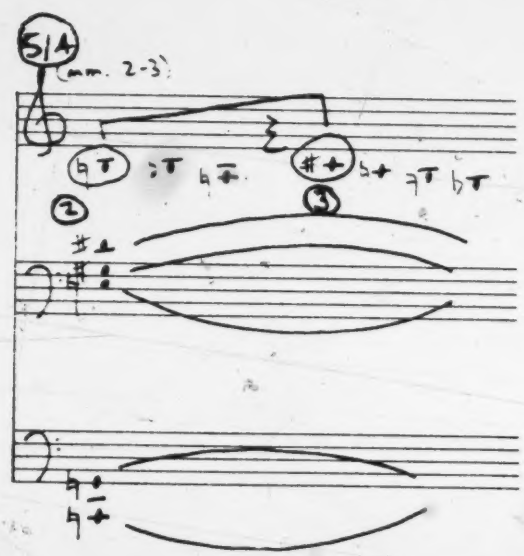
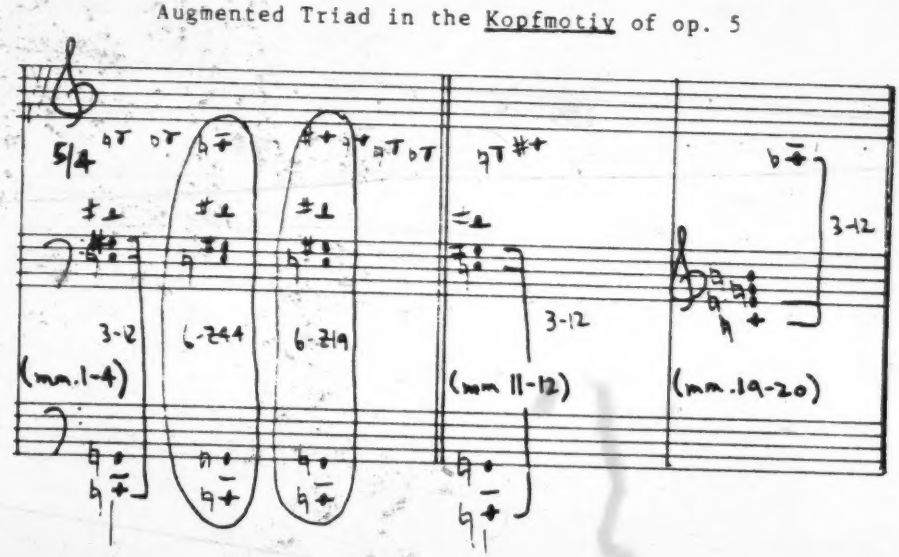


Curiously, the augmented triad included within each of the Kopfmotiv of op. 5 is a C, rather than D, augmented triad. (This

observation was made in Chapter III in the discussion of the comparison of Schoenberg's op. 19/2 and Berg's op. 5/2.) The inclusion of the C augmented triad within the Kopfmotiv, although strange within the context of focus on D, does at the very least seem to make the frame sections of the fourth piece, which rest upon C (and also include C augmented triads), less puzzling within the context of op. 5 (see Example VI-3). One could perhaps goes as far as to say that the C frame sections of the fourth piece provide some sort of tonal resolution for the Kopfmotiv, for until these sections occur, there is not even the slightest reference to C focus in op. 5. The vertical presentation of the Kopfmotiv in the fourth piece and the reiteration of subsegments of it in other of the frame sections further demonstrates the close relationship between the Kopfmotiv and the frame sections of the fourth piece.

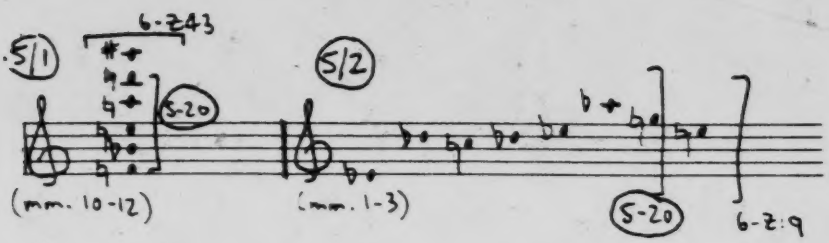
Example VI-3: Significance of the Inclusion of the C Augmented Triad in the Kopfmotiv of op. 5



From the above discussion of the changes in each Kopfmotiv from piece to piece, we can conclude that manipulations of the Kopfmotiv reflect, at least to some extent, the order of the four clarinet pieces. Another way in which the order of the pieces is reflected by events in the music is through the use of similar set materials or motives from the end of one piece to the beginning of the next. There are examples of such dovetailing between every successive pair of pieces of op. 5 (see Example VI-4). For example, the pitches of the piano hexachord reiterated throughout the last measures of the first piece form set 6-Z43; this set and set 6-Z19, which begins the Kopfmotiv of the second piece, have two pentachords in common, sets 5-20 and 5-Z18. The bottom five pitches of 6-Z43 in the first piece form set 5-20, as do the first five pitches of 6-Z19 in the second piece (see Example VI-4a). An interesting marker of the halfway point in op. 5 is given by sets 3-12 and 4-19, formed respectively from both the last three and last four pitches of the second piece and the first three and first four pitches of the third (see Example VI-4b). Finally, the clarinet parts of both the end of the third piece and the beginning of the fourth consist of similar descending semitone figures (see Example VI-4c); and, as noted above, pcs B and C♯, prominent in the last two phrases of the third piece, respectively initiate the two clarinet descents in the opening measures of the fourth piece (see Example VI-2b).

Example VI-4: Dovetailing Between Successive Pairs of Pieces of op. 5

a)



b)

c)

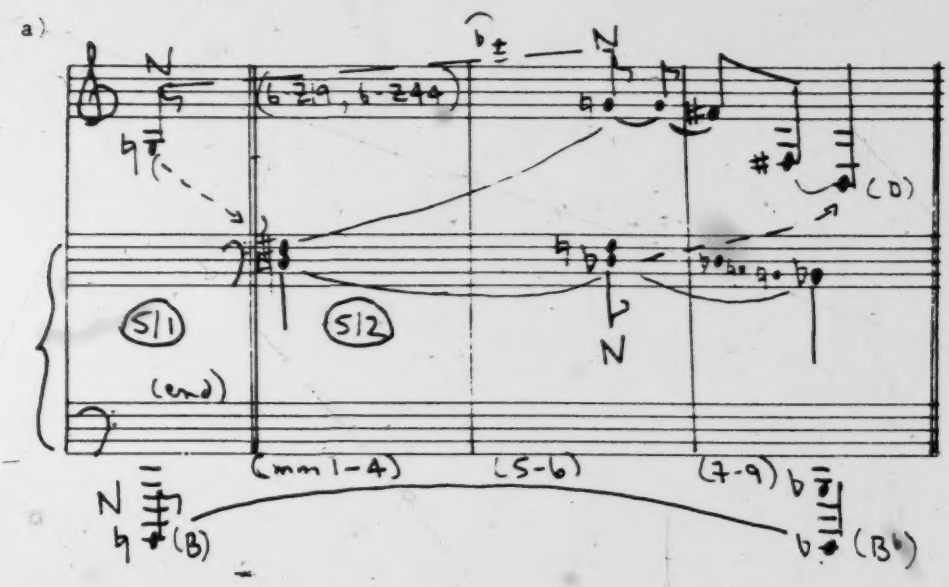
The importance of the order of the pieces of op. 5 to the analysis is reinforced by two other phenomena: the resolution of pcs of one piece in the next, and the expansion of an event in one piece in the next. There are two particularly striking examples of such occurrences in the Vier Stücke. First, there are two pitches in the first piece which seem to be resolved in the second. We recall from Chapter II (p. 32) that the last phrase of the first piece seems not to be based upon focus on D or upon the presence of 4-19 related sets, and that there are two particularly prominent pitches which are difficult to place in either context: G in the clarinet part of the last three measures, and low B in the last measure of the piano part. Several factors suggest their resolution in the second piece (see Example VI-5a). F# of the D-F# referential sonority which begins and ends the second piece is a semitone lower than the clarinet G which concludes the first piece, and it is surely significant that G appears again (an octave higher) in the "B" section of the second piece as an extended neighbour to F#. Another member of the D augmented triad, Bb, which sounds at the end of the piece, is likewise a semitone lower than the low B at the end of the first piece; and as the Bb is an octave lower than any other pitch in the second piece it seems plausible to suggest that it provides resolution for the B of the first piece.

Second, a relatively minor event in the third piece becomes in the fourth piece a large-scale event which spans two phrases. In both pieces, set 4-25, an uncommon set in op. 5, appears in conjunction with set 3-12 (see Example VI-5b). In the second

phrase of the third piece, the piano triad (set 3-12) evolves into a tetrad (set 4-25) in a small surface gesture which lasts only a measure; the appearance of set 4-25 is significant only insofar as it combines with the pitches around it to form set 8-19. However, in the fourth piece, the movement from set 3-12 to set 4-25 is reversed and largely expanded: set 4-25 is reiterated throughout almost the entire third phrase, and then is reduced to two pitches which combine with set 3-12 to form the sonority (set 5-Z17) reiterated throughout the phrase which follows. In both pieces, set 4-25 is arranged so that its inherent symmetry is obvious; sets 5-15 and 5-28 are formed when the piano tetrad is combined with overlying pitches in the right-hand piano and clarinet parts. Set 5-28 is found at the end of the second phrase of the third piece, and also begins the third phrase of the fourth piece.

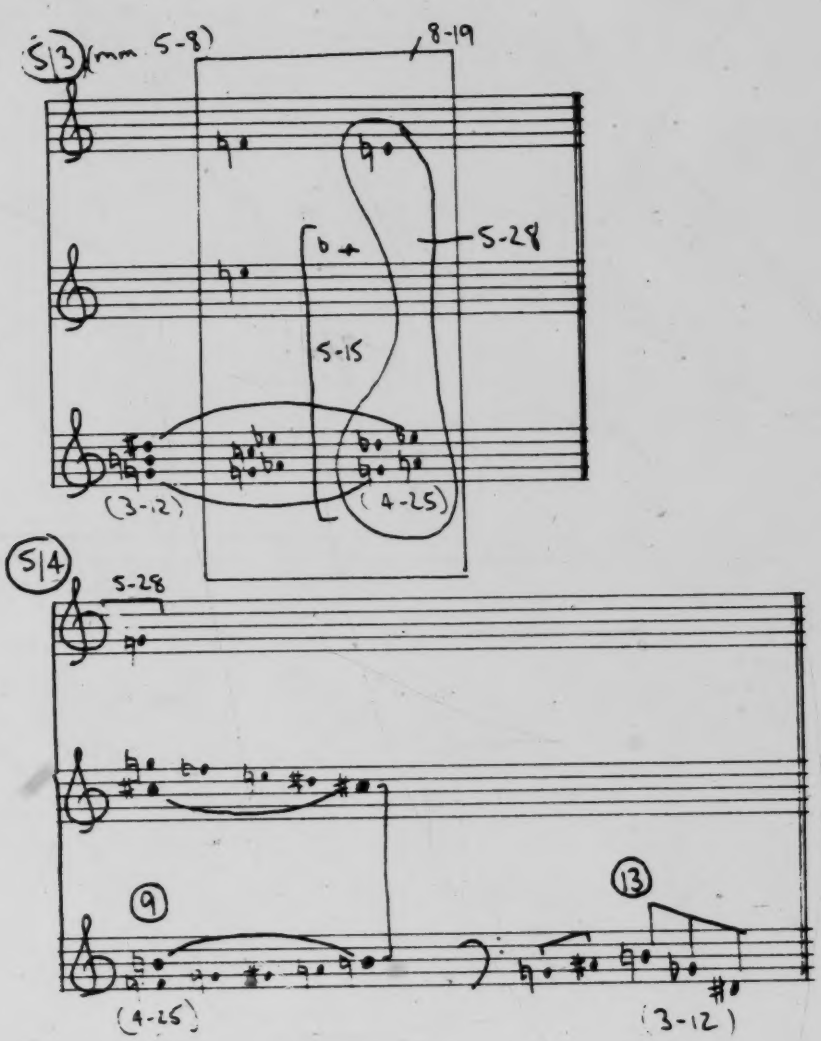
Example VI-5: Resolution or Expansion of Events From One Piece to the Next

a)



Example VI-5 (cont'd)

b)



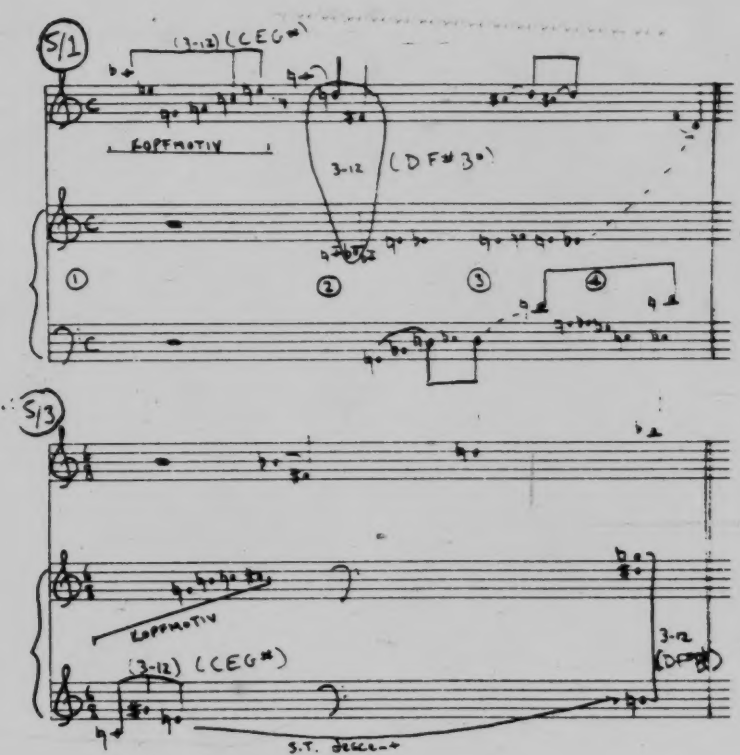
Finally, similarities in the execution of musical events reveal the division of op. 5 into two pairs of non-consecutive pieces: the first and third pieces constitute one pair, and the

second and fourth the other. The first and third pieces are particularly alike; not only do similar events occur, but for the most part the sequence of events in one piece parallels that of the other. Both pieces begin with a solo statement of set 6-Z44, slightly set off from the remainder of the phrase, which is strongly focussed on D (see Example VI-6a). In the first piece, the D augmented triad is heard immediately after the Kopfmotiv, while in the third piece, the D augmented triad concludes the first phrase. The movement from the C augmented triad of the Kopfmotiv to subsequent D focus and D augmented triad is more visible in the third piece, where the two triads are clearly articulated in the piano part and frame the phrase. In the first phrases of both pieces, the D midpoint is framed symmetrically: we recall from Chapter II the symmetrical framing of D by set 5-6 in m. 3 of the first piece, and from Chapter IV the symmetrical framing of D by set 5-10 in m. 2 of the third piece (see Example VI-6b). The clarinet motive which initiates the second phrase of the third piece is almost identical to the first piano motive of the first measure of the first piece (as noted in Chapter IV, p.54) (see Example VI-6c). Likewise, the same fluttertongued clarinet motive ends the second phrases of both pieces (with pcs F#, F, and E) (see Example VI-6d). In the second phrase, many 4-19 related sets are in evidence, while focus on D is much less obvious. (Note the prominence of the 4-19 piano tetrads.) Sets 7-21, 5-21, 4-19 and 8-19 are all clearly articulated at the climax of the third phrase; the nonachord within which they are contained in each piece is the same transposition of set 9-12

(see Example VI-6e). Set 6-34 is given as a cadential figure in the third phrase, and it should be noted that the appearance of set 6-34 at cadential points is restricted to the first and third pieces of op. 5. The bass of the third phrase concludes with a member of the D augmented triad: in the first piece, the pc is D, which as we recall, concludes a descent initiated in m. 3 of the piece; likewise, in the third piece, the pc is F#, the resolution of a long-range neighbour G, bass of the second phrase and most of the third phrase (see Example VI-6f). The fourth and final phrase does not contain any significant set relationships, and is largely symmetrical in construction.

Example VI-6: Comparison of First and Third Pieces

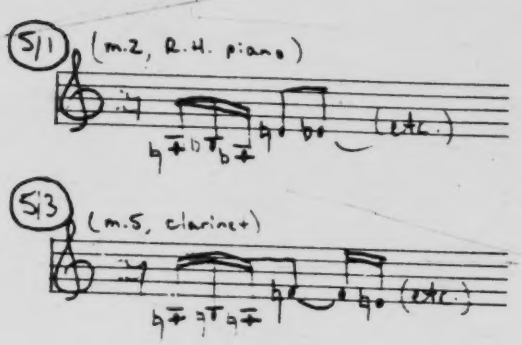
a)



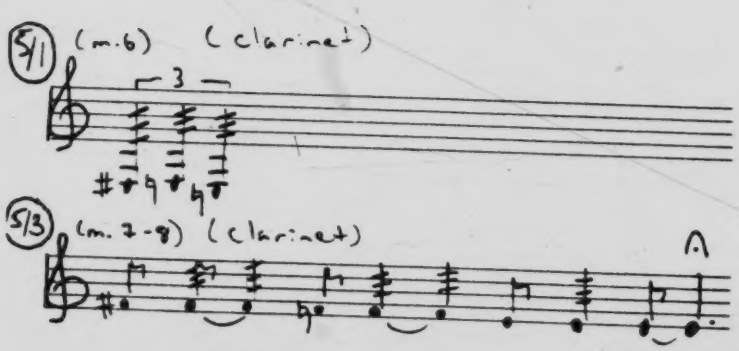
Example VI-6 (cont'd)

b)

c)

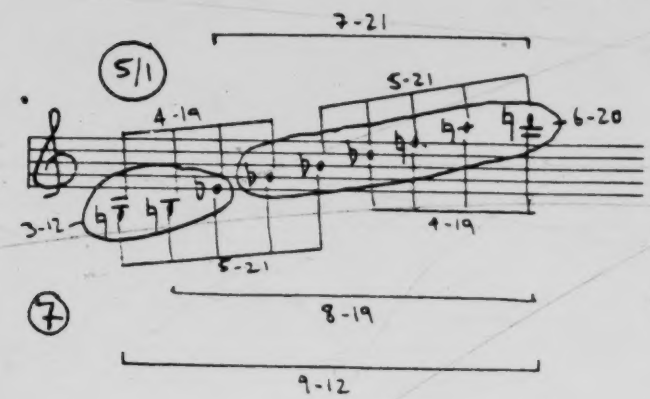


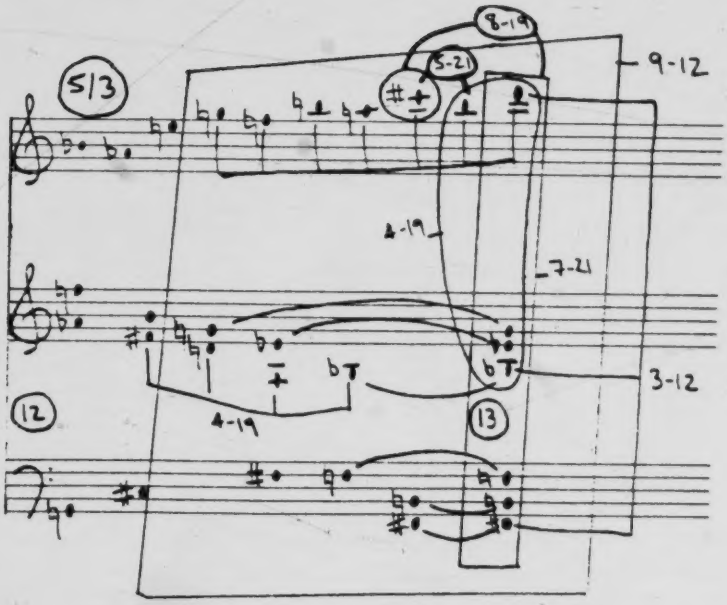
d)



Example VI-6 (cont'd)

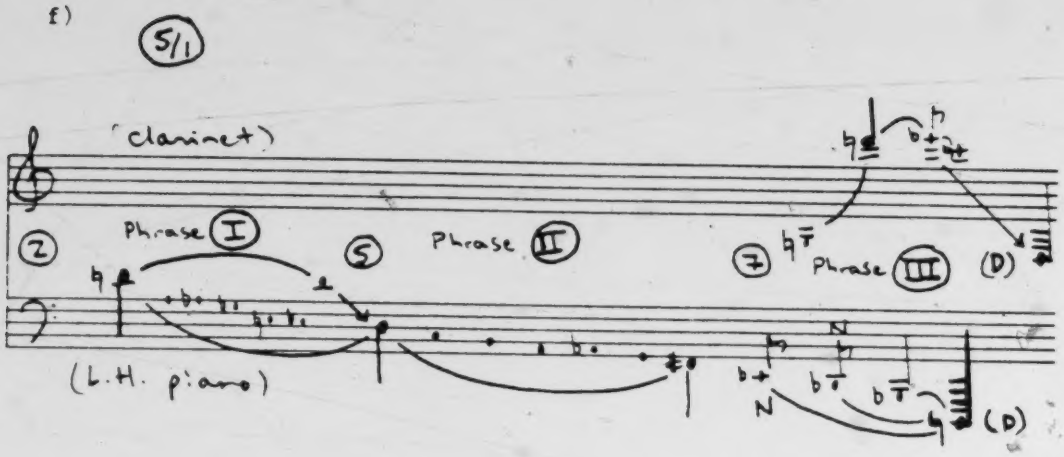
e)

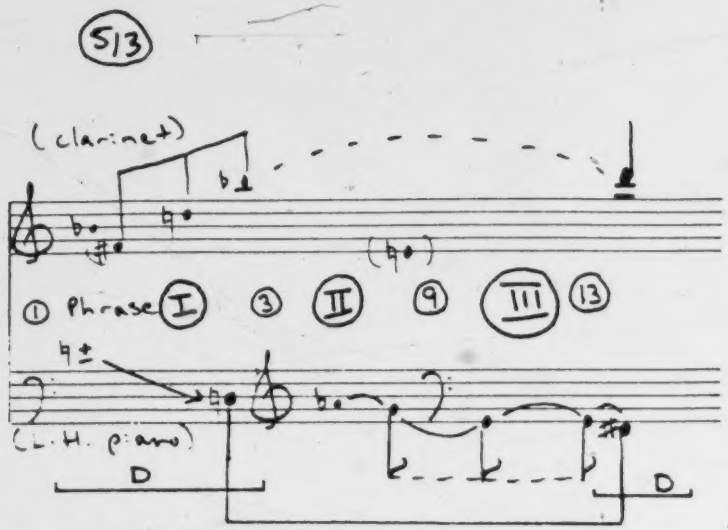




Example VI-6 (cont'd)

f)





The second and fourth pieces of op. 5 also include similar events, but to a lesser extent. As in the first and third pieces, the similarity is first clearly marked in the Kopfmotiv, which for the second and fourth pieces consists of both set 6-Z44 and its Z-pair 6-Z19, with identical pcs, as remarked upon earlier (see Example VI-1). Unlike the first and third pieces, where the Kopfmotiv is set apart in the first measure, the Kopfmotiv of the second and fourth pieces is extended into the phrase and occurs simultaneously with other events. It was mentioned earlier that the transpositions of 6-Z19 and 6-Z44 in both pieces have five pcs in common, which combine to give set 5-21, the piano pentachord of the first phrase of the fourth piece (see Example VI-1). Unlike the first and third pieces, the second and fourth pieces include recurring referential sonorities--a reiterated major third in the second piece and a piano pentachord (set 5-21) in the fourth piece. The similarities between these two pieces of the set are not nearly as extensive as are those between the first and third pieces.

In conclusion, it has been shown in this study that the logic of the Vier Stücke für Klarinette und Klavier can be deciphered in two ways: through reference to a tonal design whose focal pc is D, and through the appearance and (in some circumstances) manipulation throughout of members of a group of sets related to set 4-19. It was shown that the two analytical methods are not contradictory, but complementary, as both the tonal design and members of the set-group can be apparent in the

music at the same time for the same ends, and also because both are dependent upon the augmented triad as a structural unit. It was also shown that while each piece can be analyzed as a separate entity (Chapters II, III, IV and V respectively), the pieces can also be considered as a set, related not only by reference to a common pc and to common set materials, but also by order-specific relationships (Chapter VI).

The two systems do not account for every pitch in the work, and indeed, this was not intended. As well, subtleties of changes in rhythm, tempo and density throughout op. 5 have not been remarked upon, and the role of register has been invoked only incidentally, where it supports the tonal considerations. There is certainly more here that is worthy of examination. Mark DeVoto's study of the "motivicity" of the Altenberg Lieder, which immediately precedes op. 5, and his passing observation of the intricate motivic structure of Berg's op. 6[3] point the way towards an analysis of op. 5 strictly in terms of motivic content. A comprehensive examination of motive (in the traditional sense) was beyond the scope of this study; again, like register, it was invoked only in isolated circumstances. One derives some perverse comfort from the fact that no analysis, no matter what aspects of the work's structure it is intended to decipher, can ever completely account for all the richness and beauty of the work. This study is intended only to demonstrate that while the pitch structures of the Vier Stücke have traditionally defied analysis, the combination of tonal and atonal principles renders a rewarding analysis, one which

demonstrates not only the substance of the pieces, but also, at least some of the logic behind the sequence of events.

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Chapter I

1. H. F. Redlich, Alban Berg: The Man and His Music (London: John Calder, 1957), 55.

2. George Perle, "Berg, Alban," in The New Grove Dictionary of Music and Musicians, ed. Stanley Sadie (London: MacMillan Press, 1980), vol. 2, 537.

3. See George Perle, The Operas of Alban Berg, vol. 2, Lulu (California: University of California Press, 1985)

4. See, for example,
William DeFotis, "Berg's Op. 5: Rehearsal Instructions," Perspectives of New Music 17/1 (1978): 131-137;
George Fisher and Judy Lochhead, "Analysis, Hearing and Performance." (Paper read before the 10th Annual Meeting of the Society For Music Theory, Rochester, November 6-8, 1987.); and
Christopher Lewis, "Tonal Focus in Atonal Music: Berg's Op. 5/3," Music Theory Spectrum 3 (1981): 84-97

5. Redlich, 57.

6. Ibid.

7. Douglas Jarman, The Music of Alban Berg (London: Faber and Faber Ltd., 1979), 46.

8. Gregory Proctor, "Technical Bases of Nineteenth-Century Chromatic Tonality: A Study in Chromaticism" (Ph.D. Dissertation, Princeton University, 1978)

9. Ibid., 132.

10. Ibid., 150.

11. See (in particular) Simon Harris, "Chord-Forms Based on the Whole-Tone Scale in Early Twentieth-Century Music". Music Review 41 (1980): 36-51, which includes some discussion of Berg's Four Songs, op. 2.

12. Patrick McCreless, "Schenker and the Norns," in Analyzing Opera (University of California Press, forthcoming).

13. Lori Burns, "Tonal Language in Alban Berg's Sieben Frühe Lieder" (MMus. Thesis, University of Alberta, 1986), 90.

14. I assume the reader's familiarity with the basic tenets of Heinrich Schenker's theories of tonality, particularly as expressed in Free Composition (New York: Longman Inc, 1979).

15. Roy Travis, "Towards a New Concept of Tonality," Journal of Music Theory 3 (1959): 261.

16. See, for example, Ernst Oster, "Re: A New Concept of Tonality (?)," Journal of Music Theory 4 (1960): 85-98.

17. Christopher Hasty, "Segmentation and Process in Post-Tonal Music," Music Theory Spectrum 3 (1981): 55.

18. Travis, "Directed Motion in Schoenberg and Webern," Perspectives of New Music 4 (1966): 85.

19. See, for example, Allen Forte, "Schoenberg's Creative Evolution: The Path to Atonality," Musical Quarterly 64 (1978): 133-176; and
James Baker, "Schenkerian Analysis and Post-Tonal Music," in Aspects of Schenkerian Theory, ed. David Beach (New Haven: Yale University Press, 1983): 153-186.

20. The reader's familiarity with Allen Forte's theories and terminology as expressed in his work The Structure of Atonal Music (New Haven: Yale University Press, 1973) is assumed.

21. Lewis, 91.

22. Forte, Structure of Atonal Music, 33.

23. Forte, "Schoenberg's Creative Evolution," 136.

24. One other set, set 8-20, also holds set 6-20 invariant at T4, but is not apparent in the four clarinet pieces. However, unlike set 8-20, sets 8-7 and 8-17 are both R1 related to set 8-19, which is prominent in the pieces.

25. Set 3-12 is not, strictly speaking, a 4-19 related set, but it will be considered as such, as it is the most important triadic subset of set 4-19.

Chapter II

1. Hasty, 54.

2. Forte, Structure of Atonal Music, 83.

3. Ibid., 84

4. Ibid., 83.

5. See Hasty, "Segmentation and Process in Post-Tonal Music," Music Theory Spectrum 3 (1981): 54-73.

6. Forte, "Schoenberg's Creative Evolution," 135.

7. Ibid.

8. The word "motive" is not used here in the traditional sense, as a recurring melodic or harmonic fragment, similar to the original in terms of pitch, rhythm and contour, but in the sense of a recurring set, whose transformations from piece to piece reflect concurrent musical events (as will be shown in the last chapter of this study). The word Kopfmotiv seems to best describe the appearance of set 6-Z44 (sometimes in conjunction with its Z-pair, set 6-Z19) at the head of every piece of op. 5.

9. Because of the intervallic proportionality that exists between two sets which are complements, Forte considers the complement of a set to be "a reduced or enlarged replica of that set." (Structure of Atonal Music, 78.) The last pitch of the line that the two sets share is D, which is thus emphasized.

10. George Perle, "The Musical Language of Wozzeck." Music Forum 1 (1967), 208. Perle claims that set 6-34 serves as the referential sonority of the work; it is apparent at many of the cadences. While set 6-34 includes only one 4-19 subset, it is similar to set 4-19 in structure; like set 4-19, it includes pitches from one whole-tone scale equal to its cardinality minus one. The appearance of the set at cadential points in the first and third pieces of op. 5 will be noted.

11. Forte notes that set 8-24 is prevalent in Wozzeck as well, and is described by Berg in his lecture on Wozzeck as a "quasi-cadential chord" (Structure of Atonal Music, 28). The close relationship between set 6-34 and set 8-24 (in that 8-24 contains four subsets of set 6-34) permits us to consider both sets as important cadential events.

Chapter III

1. Redlich, 47.

2. Mark DeVoto, "Some Notes on the Unknown Altenberg Lieder," Perspectives of New Music 5 (1966), 44.

3. Ibid.

4. Mosco Carner, Alban Berg: The Man and the Work (London: Gerald Duckworth & Co. Ltd., 1975), 108.

5. Redlich, 56.

6. "The Db in the third quarter must be clearly audible, without again being struck."

Chapter IV

1. Lewis, 87.
2. Ibid., 89.
3. Ibid.
4. Ibid.
5. Ibid.
6. Ibid.
7. Ibid., 91.
8. Ibid.
9. Ibid., 90.
10. Ibid., 94.
11. Ibid.
12. Ibid., 96.

Chapter V

1. Incidentally, Forte ("Schoenberg's Creative Evolution," 138) notes that sets 6-Z44 and 6-Z19 are represented in set 9-3 more times than any other complement-related pair.

Chapter VI

1. William Benjamin, "Ideas of Order in Motivic Music," Music Theory Spectrum 1 (1979), 24.
2. Forte, Structure of Atonal Music, 33.
3. DeVoto, 72.

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